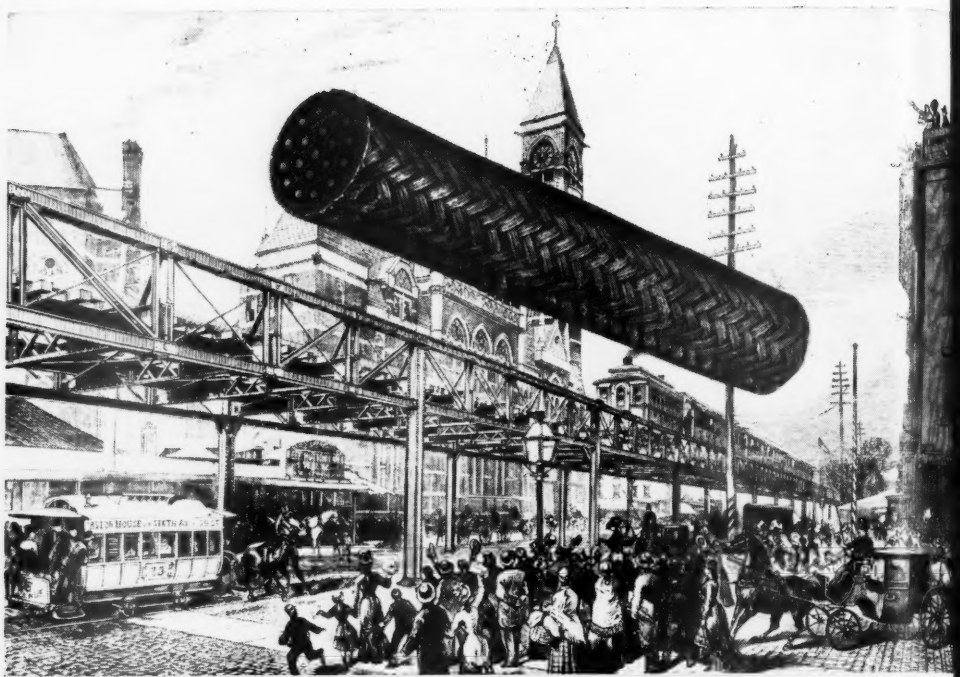
Public Utilities

Volume 58 No. 12 December 6, 1956

Kerite cables aided in the development of New York's rapid transit. Pictured is the first train on the Gilbert Elevated Railroad passing through 6th Avenue, near Jefferson Market Court, April 28, 1878.



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The Kerite Company has been identified with industrial progress in this country for the past century. Now in its second century, Kerite remains humbly dedicated to offering the best in quality and service.

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FORTNIGHTLY

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ARTICLES

FEATURE SECTIONS

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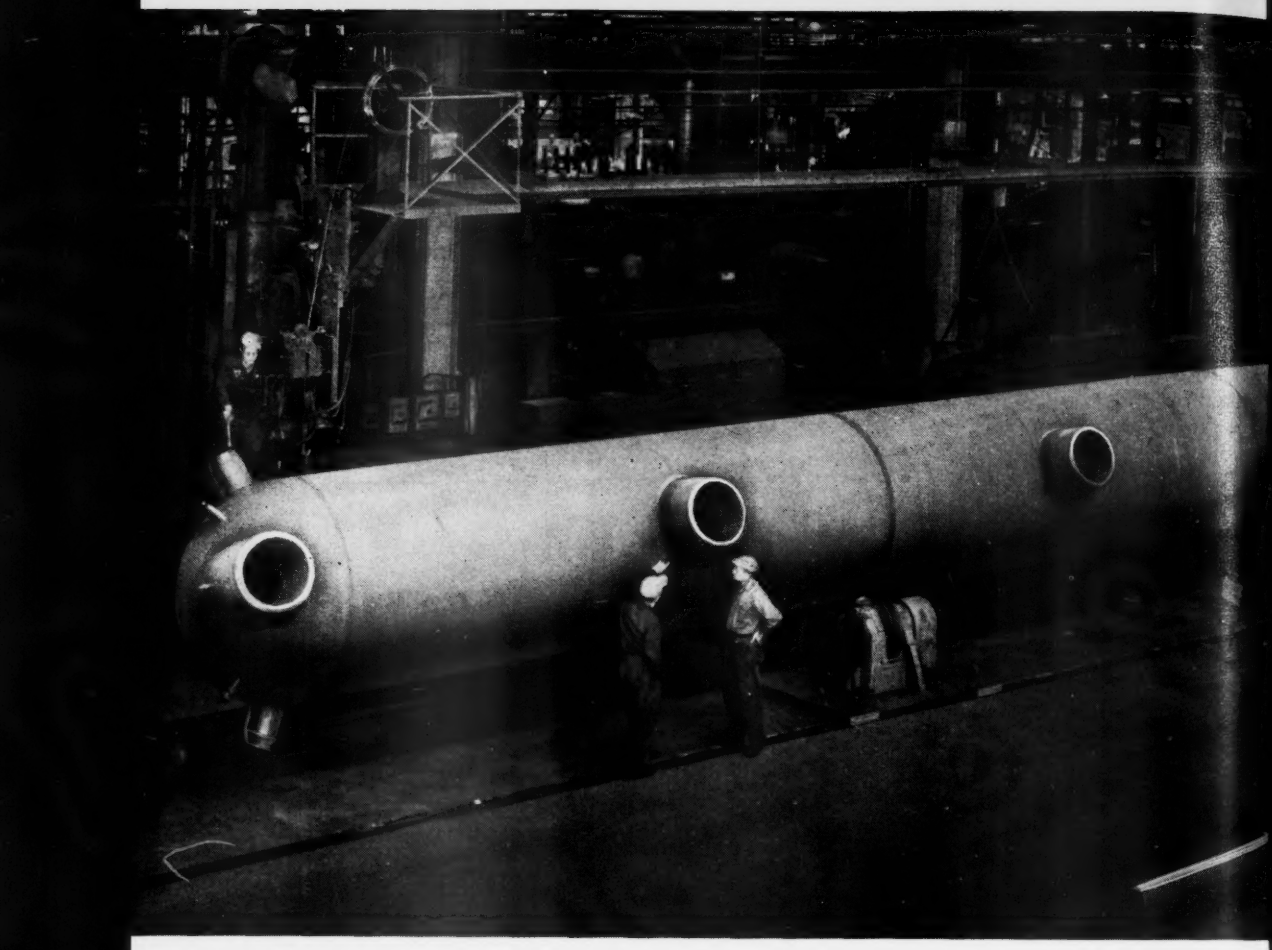


CONSTRUCTION IN HIGH

Two of the world's largest boilers for

Keeping ahead of the world's greatest city is no easy task—but for many years "largests" and "firsts" have had to be the rule with New York's source of light and energy.

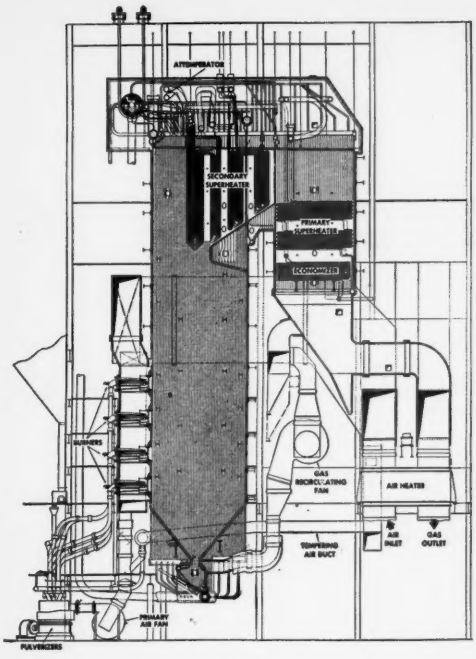
B&W furnished the first million pound per hour boiler for Con Edison's Hell Gate Station back in 1930. Many other engineering advances later accepted as standard in the industry have been pioneered on this system. For example, B&W furnished —for Con Edison's Astoria Station—the first pulverized-coal-fired pressurized boilers operating without induced draft fans.

And now, this latest step: two huge B&W Radiant Boilers being built for Con Edison . . . right in line with Con Edison's long-standing policy of progressive engineering.

Each B&W Radiant Boiler has a capacity of 2,400,000 lb of steam per hr and features pressure-firing, natural circulation, and separate furnaces with a single steam drum. The unit for Astoria is the third pressure-fired B&W Boiler to be designed for this new modern station of the Con Edison System.

In all but size and design details, Con Edison's new boilers are typical of many other B&W units now providing dependable, efficient steam generation in central station and industrial plant service.

The world's largest boiler drum . . . over 100 feet long, 66 inches inside diameter . . . is shown in a finishing bay at the B&W Barberton Plant awaiting shipment to Con Edison. It weighs over 200 tons.



One of the two identical B&W units for Con Edison's Astoria and Arthur Kill Stations. It is a horizontally pressure-fired, coal-burning Radiant Boiler designed for dry ash removal. Type EL Pulverizers are used to permit reliable, efficient, direct-firing of pulverized coal. The unit has a design pressure of 2500 psi, steam temperature of 1050 F and reheat to 1000 F. The secondary superheater is located at the exit of one furnace, and the reheater at the exit of the other furnace. The primary superheater is back of both the secondary superheater and the reheater. The giant drum, with Cyclone Steam Separators for natural circulation, provides nearly 100% separation of steam from water.

GEAR AT CON EDISON

Astoria and Arthur Kill Stations

B&W engineering advances in terms of improved steam generation efficiency—under your fuel and operation conditions...are available to you. Write, The Babcock & Wilcox Company, 161 East 42nd Street, New York 17, N. Y.

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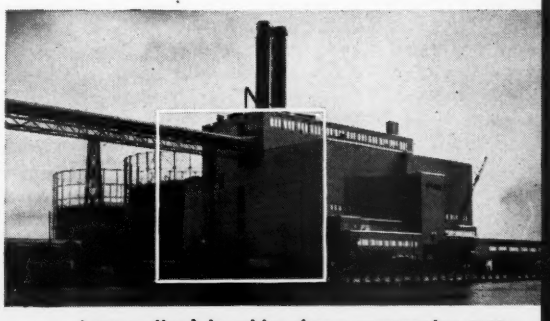
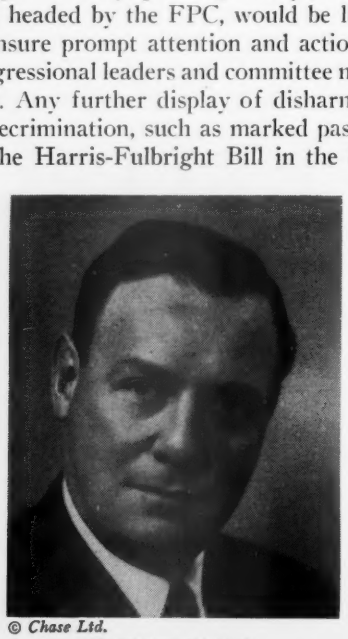


Area outlined in white shows construction area on third unit for Con Edison's Astoria Station.

Pages with the Editors

FOLLOWING the recent general election it has been predicted that legislation to exempt natural gas producers from FPC control will have a chance only if there is a unified sponsorship. Admittedly, such legislation would have had little or no chance whatever, no matter how modified and no matter how unified the sponsorship, if the Stevenson-Kefauver ticket had been successful. But it is now being recalled in the southwestern states that President Eisenhower did virtually promise, in his veto message of the Harris-Fulbright Bill last spring, that he would consider and sign reasonable legislation, provided there were safeguards to protect consumers. This situation is discussed in this issue in our "Washington and the Utilities" department, beginning on page 907.

YET the surrounding circumstances leading to the veto have made any such legislation so risky, politically, that only a common front of the three segments of the gas industry, plus regulatory authorities, headed by the FPC, would be likely to insure prompt attention and action by congressional leaders and committee members. Any further display of disharmony or recrimination, such as marked passage of the Harris-Fulbright Bill in the 84th Congress, would probably result in no legislation.



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EDWARD FALCK

ROBERT E. MC DAVID

ASIDE from the purely legislative outlook in the 85th Congress, both the regulators and the regulated, as well as gas consumer interests, are puzzled over what happens now, in view of the recent action of the U. S. Supreme Court in refusing to review the District of Columbia circuit court of appeals decision in the Panhandle Eastern Pipe Line Case.

THE over-all effect of the lower court's decision was to set aside an FPC rate increase for the Panhandle Eastern Pipe Line Company, which had been computed on the basis of fair field price of gas rather than the conventional cost-of-production formula which the FPC has used for rate making in other regulatory fields. In the opening article in this issue, EDWARD FALCK, one-time director of the Office of War Utilities and now Washington consultant, has analyzed the difficult situation in which both the FPC and the natural gas producers now find themselves, as a result of a number of complex problems still prevailing.

BORN in New York city, MR. FALCK received his education at Columbia Uni-

versity in that city (AB, '30; BS, '31; MS, engineering, '32; University Fellow, '32, '33). He started his career as the director of rates and research with the Tennessee Valley Authority (1933-37) and then moved over to the business-managed side of the industry as special assistant to the vice president of Consolidated Edison Company of New York (1937-42). During World War II he became consultant to the power branch of the old War Production Board (1941-42), deputy director of the Office of War Utilities (1943-44), and eventually director of that branch. Since the war he has headed his own firm of consultants, Edward Falck & Co., in Washington, D. C.

LAWRENCE L. STENTZEL

IN forthcoming issues of PUBLIC UTILITIES FORTNIGHTLY we hope to keep our readers advised of any definite plans which may be formulated for new legislation affecting natural gas producers under the Natural Gas Act. We regard it as important that analyses of such projects take place while they are in the formative stage rather than wait until they are well along in the legislative process.

* * * *

PUBLIC utility companies, most of which operate in more than one community and many at a statewide level, are particularly vulnerable to so-called tax equalization. Periodically, steps are taken and laws are passed seeking to equalize tax assessment as between counties or political subdivisions of the same state. The California State Board of Equalization has been particularly active in this respect. Beginning on page 891, ROBERT E. MCDAVID, member of the California board, which assesses tangible property of the major public utilities, has written this account of the difficulties involved.

MR. MCDAVID has been practicing as a certified public accountant for several years. He was formerly an executive of the American Brake Shoe & Foundry Company and was with Magnavox Radio Corporation, both of those positions having been in connection with accounting, taxation, and finance. His election as a member of the California State Board of Equalization in 1954 was his first venture as a candidate for office.

* * * *

WE have been hearing a lot lately about the so-called "nonskeds" in the field of commercial aviation. During the past year some 49 irregular carriers have been authorized for the first time by the Civil Aeronautics Board to engage in regular scheduled operations.

A PAPER originally prepared by LAWRENCE L. STENTZEL of the New York bar for the Section of Public Utility Law of the American Bar Association, and delivered at the ABA annual convention in Dallas, Texas, on August 27th, has been substantially reproduced in the form of a feature article in this magazine, beginning on page 899.

MR. STENTZEL attended the University of Michigan and Indiana University, graduating from the latter (BA, '50; LLB, '52). He is an associate of the New York law firm of Hale Stimson Russell & Nickerson. His firm specializes in air carrier regulation, including such clients as Allegheny Airlines, Inc., Scandinavian Airlines System, Inc., El Al Israel Airlines Limited, Varig Airlines, and Swissair.

THE next number of this magazine will be out December 20th.

The Editors

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(December 20, 1956)

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PARTNERS IN POWER: COAL AND THE UTILITIES

The electric utility industry is now the best customer of the coal industry, surpassing even the railroads in recent years. But the increasing requirements of the nation's economy for heating fuels of all kinds have created changing patterns for fuel markets and industrial operations. The introduction of natural gas at bargain rates into service areas of electric utilities during nonheating seasons, the increasing freight rates being asked by railroads, and the complex outlook for both future hydroelectric and atomic nuclear power plant development are factors which will bear constant supervision and analysis. Tom Pickett, former Texas Congressman and now executive vice president of the National Coal Association, has written a comprehensive review, as well as a timely analysis, of the economic relationship between coal and electricity. This article stresses not only the importance of partnership between the two but also the continued threat of invasion by government agencies into the free private enterprise economies of both industries.

REGULATORY CHECK LIST FOR STATE SECURITY ISSUE CASES

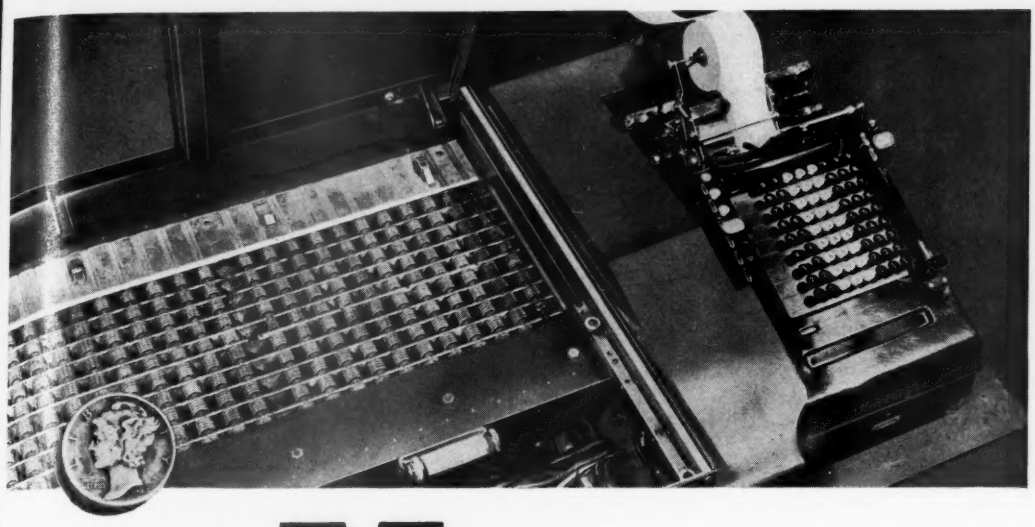
What do state public utility commissioners think about; what tests do they apply; and what rules do they follow in cases before them involving applications by utility companies for security issues? Based on his experience as a member of the Colorado Public Utilities Commission, John P. Thompson has given us a down-to-earth, practical description of the standards and routines which he believes state commissions will find helpful in handling such proceedings fairly and with dispatch. Essentially, Commissioner Thompson has outlined a check list of questions which he thinks commissions should ask and applicant utilities should answer in the process of obtaining regulatory approval for the issuance of new public utility securities of all kinds. He goes into the terms and conditions as well as the form of securities and other background data which not only regulatory commissions and their staffs but also investment specialists and others interested in utility financing will want to consider in dealing with this type of procedure.

TRANSIT SURVIVAL POSES "INGENIOUS PARADOX"

The paradox of the transit industry today may be stated simply in two propositions: (1) Never in the history of the country has the outlook for increased demand and expanded facilities for public transit been so plainly indicated as in this day of rapid creation and growth of cities, suburbs, satellite cities, and newly developing residential areas generally. (2) Never has the outlook for over-all prosperity for the transit business been so cloudy. Herbert Bratter, Washington economist and author of business articles, has endeavored to probe beneath the surface and find not only the reasons for, but possible answers to, this paradox of increasing demand against a diminishing return. He finds that the real problem may be recognition of factors which do not enter into the economics of more ordinary profitable business, including other public utility business.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***



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We can conclusively prove to you that our "One Step" method of rate analysis will *make money for the company and you* — all we need is a sample of your billing sheet, a copy of rate schedules and an estimate of the number of customers billed at each rate, and your frequency table requirements. From these we can give you an estimate of costs and a time table for production — both will be eye-openers! Write Dept. P today.

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Remarkable Remarks

"There never was in the world two opinions alike."
—MONTAIGNE

DOUGLAS McKAY
Former Secretary of Interior.

"We're selling an intangible thing—good government."

T. COLEMAN ANDREWS
Former Commissioner of Internal Revenue of the United States.

"Very few can understand it [our tax system] and everyone is kept poor by it."

WILLIAM T. FARICY
President, Association of American Railroads

"The mere physical facts as to the extent of transportation facilities in this country, and the variety of their ownership and use, make any chance of general monopoly in transportation too remote to deserve consideration."

M. S. RUKEYSER
Columnist.

"From a broader perspective, the significance of the brotherhoods going to bat for the railroad industry reveals areas of agreement between capital and labor, and highlights the opportunity for co-operation between the unions and management."

SINCLAIR WEEKS
Secretary of Commerce.

"The more I study modern conditions the more I am convinced that *the way to preserve private enterprise is to preserve sound government.* I doubt that we can keep government sound unless the champions of private enterprise spend just as much time fighting for sound policies in government as they do in making and selling a product."

M. J. RATHBONE
President, Standard Oil Company of New Jersey.

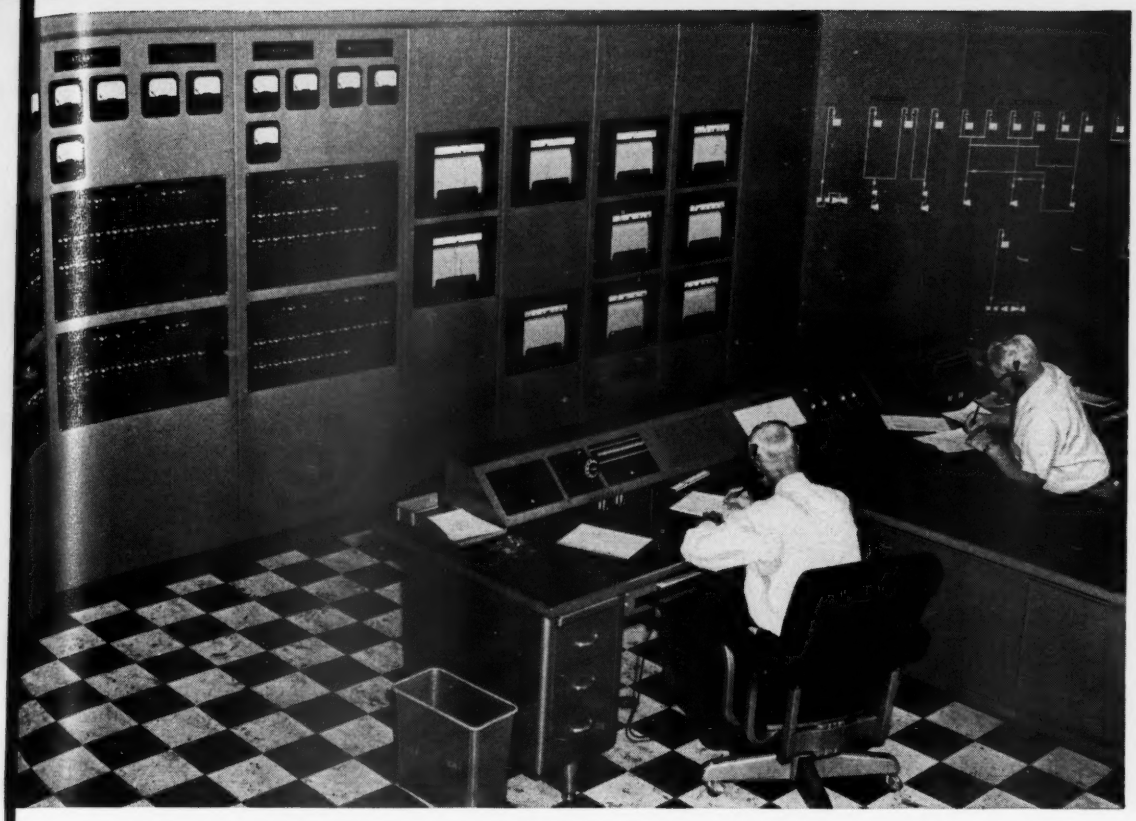
"Business, almost more than all other American institutions, must be understood to be effective. It directly depends upon the widest possible public support for its functioning and growth. Without understanding there cannot exist the kind of climate in which business thrives. The consequences could soon be a weakening of our economic system."

DONALD RICHBERG
Former chairman, National Recovery Administration.

"The American people are actually being exploited today as never before by labor union monopolies exercising arbitrary and often very foolish controls over a free enterprise system to which they profess devotion, but which they are fast destroying . . . [The only solution is] to write and enforce laws preventing and prohibiting the acquisition and use of monopoly powers by anyone."

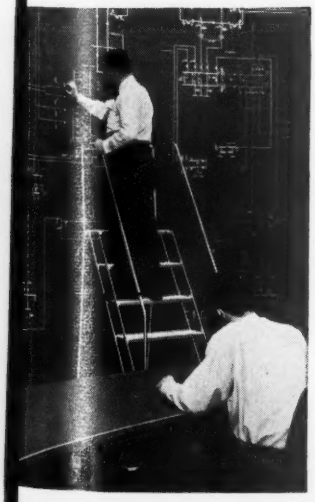
Excerpts from "The Guaranty Survey," published by Guaranty Trust Company of New York.

"The second Hoover Commission has performed a notable public service by pinpointing definite ways and means of achieving the twin objectives of governmental economy and the strengthening of free enterprise. In so doing, it has provided a rallying point for those who for more than two decades have watched with grave misgivings the encroachments of political authority on the economic lives and liberties of the people."



This new Systems Operations Center of the Jersey Central Power & Light Company keeps in touch with remote stations through Bell System channels for telemetering and remote control.

ell System communications help ersey Central regulate power transmission



lored pegs in wall diagram indicate gments of line to be isolated for main- nance work.

Channels for telemetering and remote control enable the Jersey Central Power & Light Company to regulate power transmission every step of the way from generator to home, store and factory.

An engineer glances at the dials, which give him a running picture of the system and the changing demands he has to meet—information which has been brought to him by Bell System telemetering channels.

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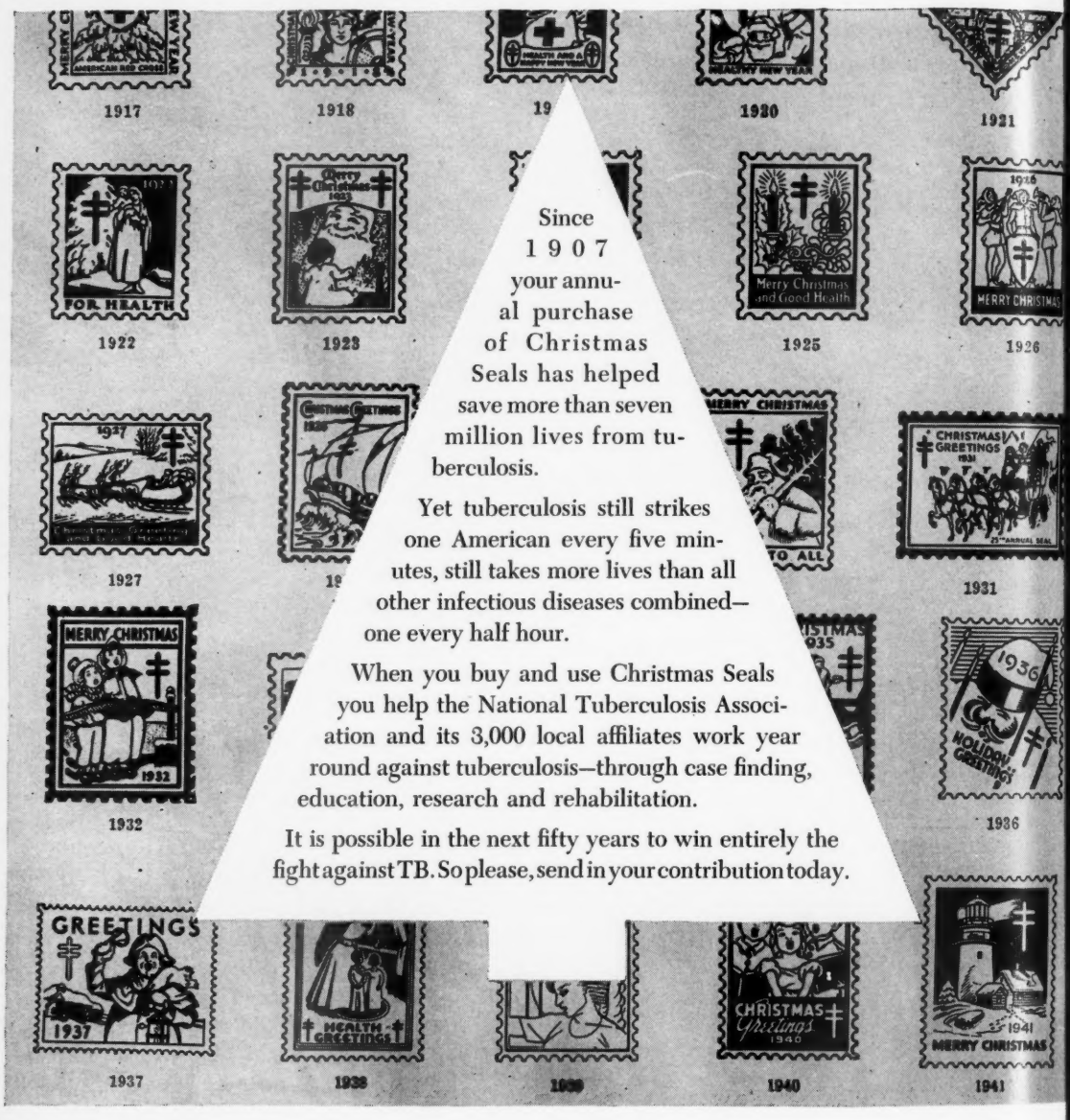

Since 1907 your annual purchase of Christmas Seals has helped save more than seven million lives from tuberculosis.

Yet tuberculosis still strikes one American every five minutes, still takes more lives than all other infectious diseases combined—one every half hour.

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50TH Annual Christmas Seal Sale

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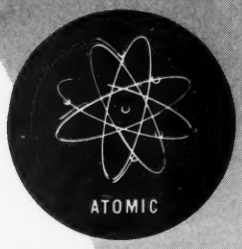

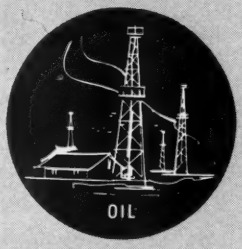

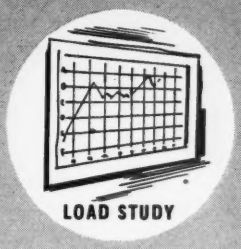

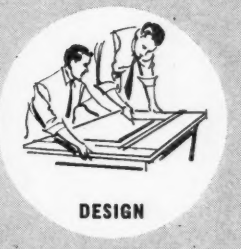

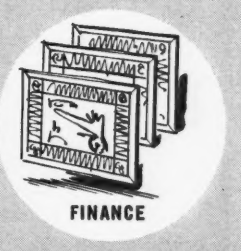

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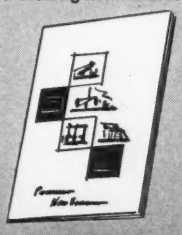

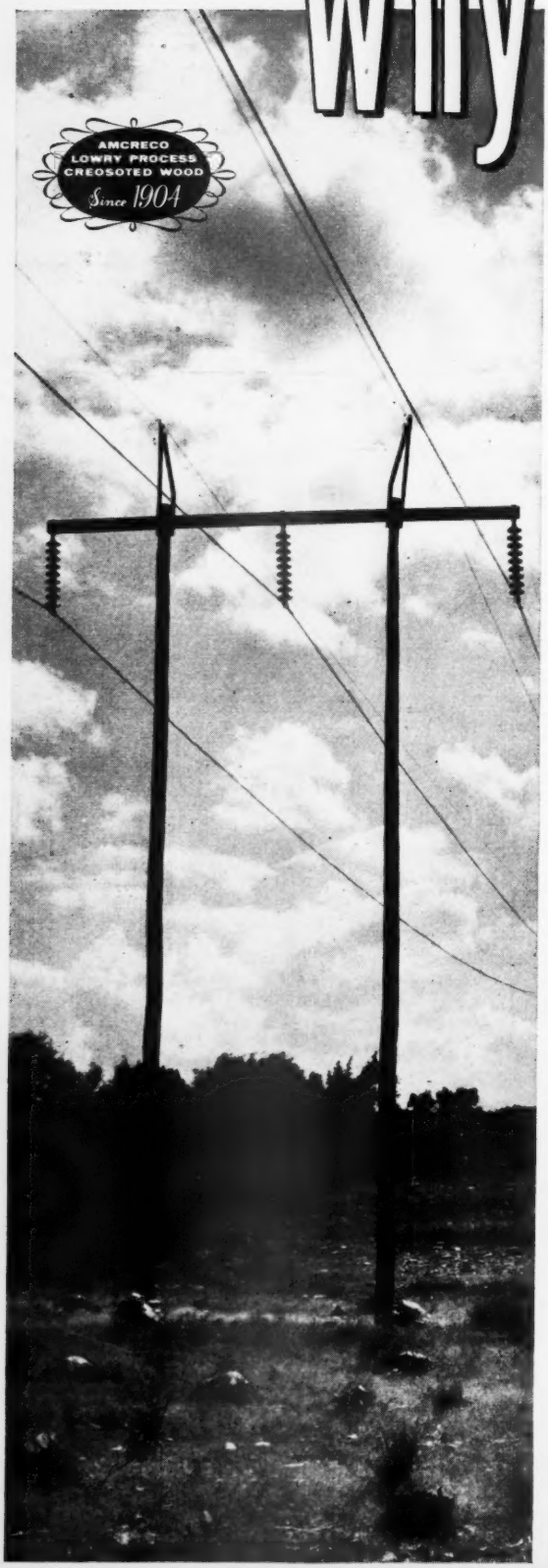

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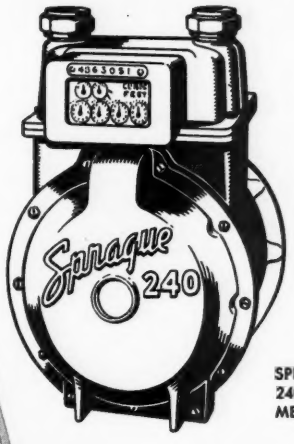

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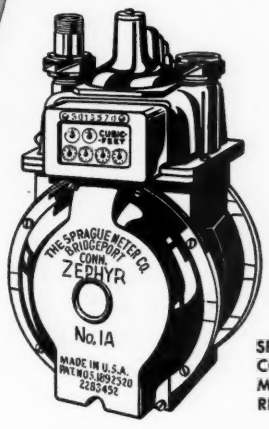

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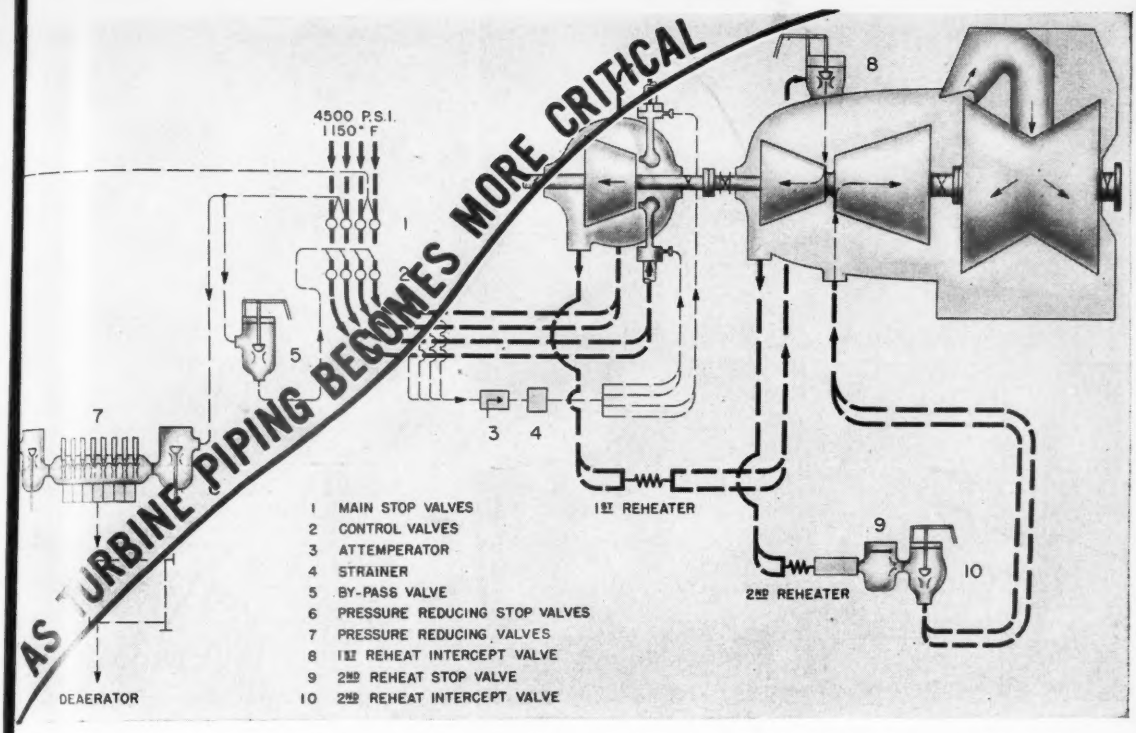

Schematic steam-flow diagram of the General Electric 125,000-kw turbine-generator unit at Ohio Power Company's Philo plant

Kellogg Engineering and Fabrication Keep Pace

e General Electric 4,500 psi, 1,150 F am turbine at Ohio Power Com- ny's Philo plant is a major advance high pressure-high temperature de- n. Piping on the turbine typifies . W. Kellogg's service to power gen- ating equipment manufacturers and the electric-utility industry.

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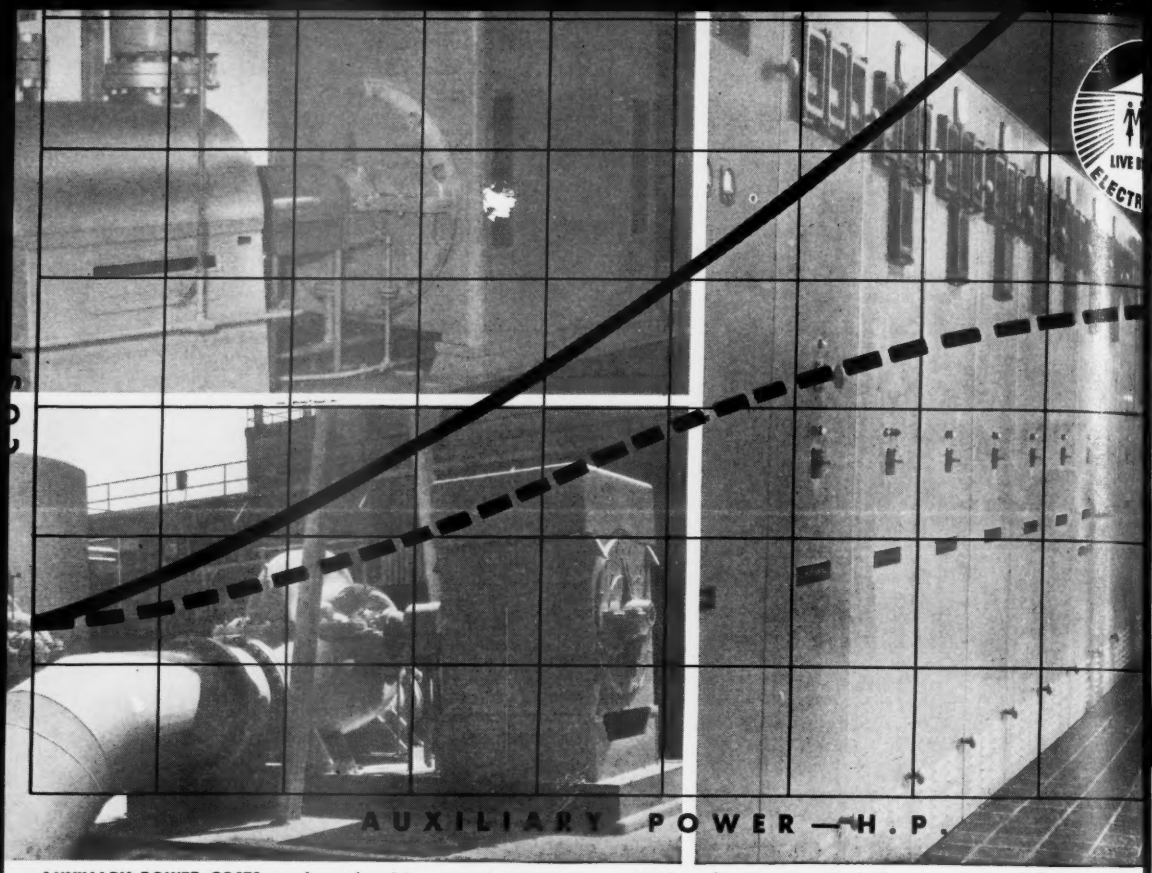

AUXILIARY POWER COSTS can be reduced by re-evaluating present system design with an eye to future expansion needs. Solid line indicates extension of a present method of system design. G-E study shows s stantial savings possible by proposed method (dotted line).

How can power station costs be cut?

New General Electric study points to savings through careful engineering of auxiliary power systems

4.16-KV, 350-MVA SWITCHGEAR will serve large auxiliary power systems of the future. Above, engineering mgrs. G. M. Reed, E. M. Troischt, and J. G. Torbit, G.E.'s Medium Voltage Switchgear Dept., study design of interrupter components for new high-capacity, metal-clad, magne-blast equipment.

Units over 500,000-kw, operating at super-critical steam conditions are probable within the next several years. The trend towards increased unit size and higher pressures means auxiliary power requirements will increase rapidly.

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An additional cut in costs can be achieved by using select motor throwover and parall throwover schemes for emerge and routine bus transfers, rat than transferring 100% motor l as is sometimes the practice. T proposed method of operation creases the size of units to wh a particular rating of switchg can be applied.

To obtain details on how tensive planning of the auxili power system pays off, cont your General Electric Appara Sales Office. For a copy of the stu on auxiliary power systems, wr for GET-2673, General Elect Company, Section 301-290, Sch nectady 5, N. Y.

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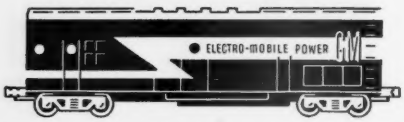
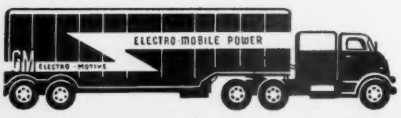
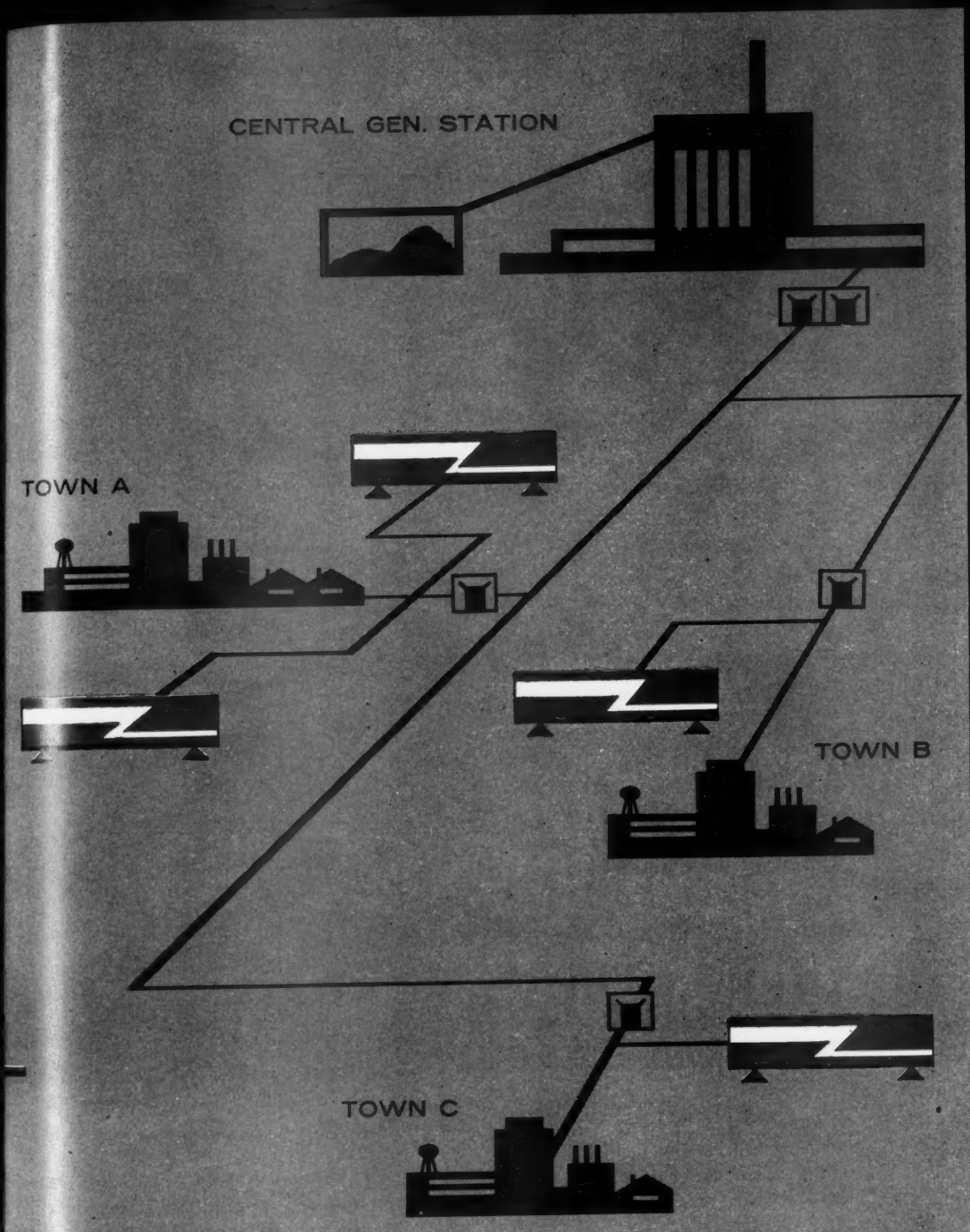


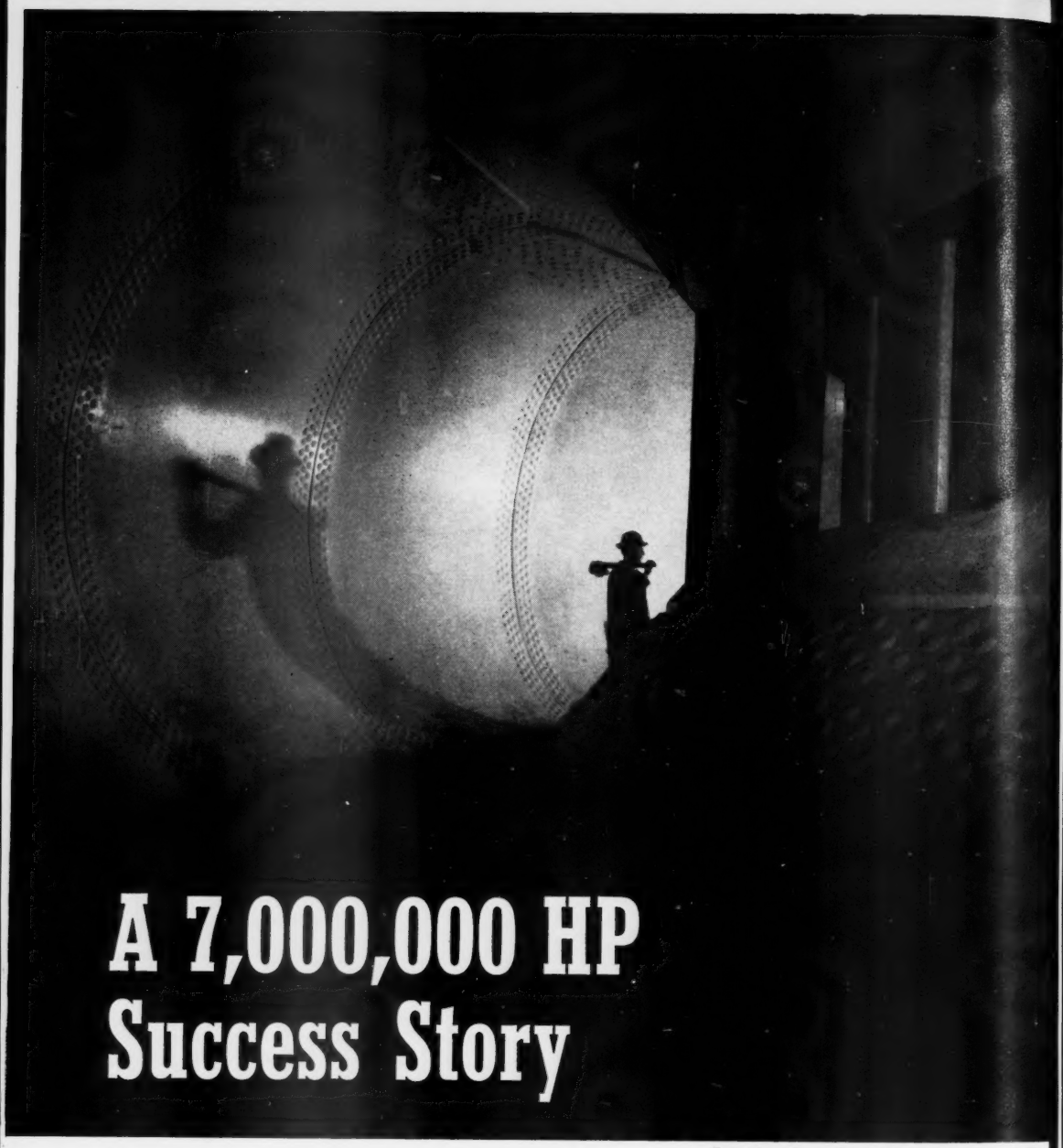
RAIL CAR—1000 kw units for use on sidings or placed on piers for semi-permanent use.



TRUCK TRAILER—500 kw units offer excellent mobility for many temporary applications.

This simple diagram suggests how Electro-Mobile Power located at points of load can effectively reduce reserve requirements and costs. Assuming a 1000 kw line loss at time of peak from the central station, only four 1000 kw EMP units are needed to pick up a 5000 kw demand. Naturally, line loss will vary according to the make-up of the system. However, an analysis of your peak line losses will show what savings can be expected.





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DECEMBER

Thursday—6 *Edison Electric Institute-American Gas Association, Planning Committees, begin accounting conference, New York, N. Y.*	**Friday—7** *Institute of Radio Engineers ends 3-day instrumentation conference, Atlanta, Ga.*	**Saturday—8** *Interstate Oil Compact Commission ends 3-day annual meeting, Miami Beach, Fla.*	**Sunday—9** *Northeastern Weed Control Conference will be held, New York, N. Y. Jan. 10-12, 1957.* ***Advance notice.***
Monday—10 *Doble Engineering Company will hold annual conference of clients, Boston, Mass. Jan. 14-18, 1957.* ***Advance notice.***	**Tuesday—11** *Southeastern Electric Exchange, Personnel Administration Section, will hold meeting, Washington, D. C. Jan. 17-19, 1957.* ***Advance notice.***	**Wednesday—12** *Southern Gas Association will hold employee relations round-table conference, Dallas, Tex. Jan 18, 1957.* ***Advance notice.***	**Thursday—13** *Edison Electric Institute, Commercial Cooking and Water Heating Committee, begins meeting, Cleveland, Ohio.*
Friday—14 *Edison Electric Institute-American Gas Association, Customer Accounting Committees, end 2-day meeting, New Orleans, La.*	**Saturday—15** *American Institute of Electrical Engineers will hold winter general meeting, New York, N. Y. Jan. 21-25, 1957.* ***Advance notice.***	**Sunday—16** *New England Gas Association, Operating Division, will hold meeting, Boston, Mass. Jan. 23, 1957.* ***Advance notice.***	**Monday—17** *Pennsylvania Gas Association will hold midwinter sales conference, Philadelphia, Pa. Jan. 25, 1957.* ***Advance notice.***
Tuesday—18 *Southern Gas Association will hold accident prevention round-table conference, Birmingham, Ala. Jan. 25, 1957.* ***Advance notice.***	**Wednesday—19** *Industrial Heating Equipment Association will hold meeting, Washington, D. C. Jan. 28, 29, 1957.* ***Advance notice.***	**Thursday—20** *New England Gas Association, Accounting Division, will hold meeting, Boston, Mass. Jan 31, 1957.* ***Advance notice.***	**Friday—21** *Missouri Valley Electric Association will hold industrial and commercial sales conference, Kansas City, Mo. Jan. 31-Feb. 1, 1957.* ***Advance notice.***

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FORTNIGHTLY

VOL. 58, NO. 12 DECEMBER 6, 1956

Trends in Producer Rate Controls

Will the new Congress make another attempt to deal with the troublesome subject of FPC regulation of natural gas producers? What has been the effect of the recent Supreme Court refusal to review a lower federal court decision dealing with the FPC's use of fair field price instead of cost of production? These and other puzzling aspects of producer regulation by the FPC are analyzed and interpreted in this article.

BY EDWARD FALCK*

FOR a period of about fifteen years—from 1938, when the Natural Gas Act was first enacted, until 1954—the Federal Power Commission regulated the rates of natural gas companies on the original cost or prudent investment basis.[1]

In the Panhandle Eastern Pipe Line Company Case, decided April 15, 1954, in Opinion No. 269, the Federal Power Commission decided to allow a fair field price for natural gas produced from its own reserves by Panhandle Eastern as a substitute for the amount that would have been arrived at by the cost method.[2] The city of Detroit, Michigan, appealed to the United States court of appeals for the District of Columbia circuit to set aside this order of the commission, and on December 15, 1955, the court of appeals ruled that the Federal Power Commission may

*Consultant, Edward Falck & Co. Washington, D. C. For additional personal note, see "Pages with the Editors."

[1] The leading cases were: Re Canadian River Gas Co. et al. 43 PUR NS 205, 3 FPC 33 (March 18, 1942); City of Cleveland *v.* Hope Nat. Gas Co. 44 PUR NS 1, 3 FPC 150 (May 26, 1942); Re Interstate Nat. Gas Co. et al. 48 PUR NS 267, 3 FPC 416 (April 27, 1943); and Re Cities Service Gas Co. 50 PUR NS 65, 3 FPC 459 (July 28, 1943).

[2] 3 PUR3d 396.

depart from original cost but in so doing it must justify the resulting increase in rates over the level that would have been arrived at had the original cost method been adhered to.[3] The Federal Power Commission and Panhandle Eastern petitioned the Supreme Court for review of this decision, but on October 8, 1956, *certiorari* was denied. In effect, the Supreme Court upheld the earlier ruling of the court of appeals. (The highest court on November 17th refused to reconsider. —Ed.)

IN its original opinion, the Federal Power Commission referred to evidence that had been introduced by Panhandle Eastern showing the decline in the ratio of pipeline-produced gas to the total transported and sold by interstate pipelines since the effective date of the Natural Gas Act, as amended. The commission was convinced that the public interest would be better served by permitting the pipeline to receive the weighted average arm's-length price for natural gas in the fields where it is produced than to limit the pipeline to the meager revenues that would result from the application of the rate base method. The basic reasoning behind the commission's position on this issue was that pipelines should be encouraged in the public interest to maintain and increase their exploration and gas production activities.[4] The court of appeals held that the commission cannot be compelled to fix rates at the lowest level of reasonableness but nevertheless pointed out that the aim of the Natural Gas Act was to protect consumers against exploitation. The court noted that the fair field price results in higher rates than would have resulted from the traditional rate base method. The court then went on to conclude as follows:

> . . . If the commission contemplates increasing rates for the purpose of encouraging exploration and development, or the ownership by pipeline companies of their own producing facilities, it must see to it that the increase is in fact needed, and is no more than is neeeded, for the purpose. Further than this we think the commission cannot go without additional authority from Congress.
>
> . . . The mere fact that the field price method is used does not vindicate the rates. Its use can be justified only in terms of a demonstrated public interest. In this case an allowance for the desired purposes, assuming they are valid, could be included without resort to the field price system. When the latter method is used the evidence and findings must show that the increase in rates thus caused is no more than is reasonably necessary for the purposes advanced for any increase. . . . We simply say that if the commission is now to abandon the treatment historically accorded pipeline-produced gas in rate making on the ground that the ultimate public interest will be better served thereby, the commission should justify it on the record.

For these reasons, the court of appeals remanded the case in order to permit the commission to supplement the record and

[3] City of Detroit *v.* Federal Power Commission (CA DC 1955) 11 PUR3d 113, 230 F2d 810. This case is commonly referred to as the "Detroit Case."

[4] For more detailed discussion of the Federal Power Commission's decision in the Panhandle Eastern rate case, see the author's article, "What Do the Panhandle and Phillips Cases Mean?" in the May 27, 1954, issue of PUBLIC UTILITIES FORTNIGHTLY.

findings consistently with the views expressed by the court.

THE further course that may be taken by the commission and the courts in the Panhandle Eastern Case will be of profound significance to other pipeline companies producing from their own reserves.[5] It will also be of great interest to nonpipeline or so-called independent producers of natural gas that are making sales in interstate commerce.

It will be recalled that the Federal Power Commission decision in the Panhandle Eastern Case was issued on April 15, 1954, almost two months before June 7, 1954, when the Supreme Court decided the Phillips Petroleum Company Case.[6] The Phillips Case conferred on the Federal Power Commission jurisdiction over the rates of independent producers, who had theretofore been unregulated.

The question has been raised as to the probative value of field price data in a producer rate case now that the prices contained in such contracts are subject to Federal Power Commission jurisdiction.

In disposing of this question, it should be pointed out, first, that not all field prices are subject to the regulatory control of the Federal Power Commission. The prices in intrastate contracts are exempt from Federal Power Commission jurisdiction. Also exempt are the prices contained in direct industrial sales contracts entered into by interstate pipelines. Furthermore, the Federal Power Commission was not in fact exercising regulatory jurisdiction over independent producers prior to June 7, 1954, so that the prices in contracts that were entered into between nonaffiliated companies prior to that date represent the then current value or going value of gas in an unregulated environment.

IT is and has been the practice of the Federal Power Commission to accept the initial prices contained in new contracts that are filed with it, and such prices become the lawful prices unless and until they are changed as provided for in §§ 4 and 5 of the Natural Gas Act. These initial prices afford basic economic evidence of the value of the gas to the buyers and sellers as shown by their willingness to enter into contracts. This point was well brought out by Commissioner Digby during the reargument of the Union Oil Company of California Case:

> . . . The point I was making is that your record here discloses the prices at which gas is being sold in the area in Louisiana where your gas is produced

[5] E.g., Colorado Interstate Gas Company, Northern Natural Gas Company, Natural Gas Pipeline Company of America, United Gas Pipe Line Company, and El Paso Natural Gas Company.

[6] Phillips Petroleum Co. *v.* State of Wisconsin et al. 347 US 672, 3 PUR3d 129.

¶ *"IT is and has been the practice of the Federal Power Commission to accept the initial prices contained in new contracts that are filed with it, and such prices become the lawful prices unless and until they are changed as provided for in §§ 4 and 5 of the Natural Gas Act. These initial prices afford basic economic evidence of the value of the gas to the buyers and sellers as shown by their willingness to enter into contracts."*

which are not under suspension, sold in interstate commerce. To my mind that is a regulated price, just the same as one which has been investigated, and the lawful rate determined, because it is under the act, and it is under our jurisdiction. It is a regulated rate . . .[7]

THE Federal Power Commission has recognized that evidence of current prices for comparable sales of natural gas in the same general area is relevant to the determination of just and reasonable rates. Thus in Davidor & Davidor, the commission said:

> . . . Evidence also was adduced of current prices for comparable sales of natural gas in the same general area. Respecting evidence of arm's-length bargaining and of area or field prices, for present purposes our position on this matter is sufficiently stated in our order issued on January 13, 1956, In the Matters of Cities Service Gas Company and Signal Oil & Gas Company, Docket Nos. G-2569 et al., where we said, *inter alia*, that although "proof of arm's-length bargaining and evidence of field prices do not suffice to sustain the burden of proof under a § 4 or § 5 proceeding . . . we recognize that such evidence is relevant to a determination of just and reasonable rates." Here again, although the evidence relevant to these matters leaves something to be desired in completeness, it deserves our consideration, and shows that a rate of 10 cents per Mcf is reasonable in comparison with other prices being charged in the area, and is, in fact, the "going rate."[8]

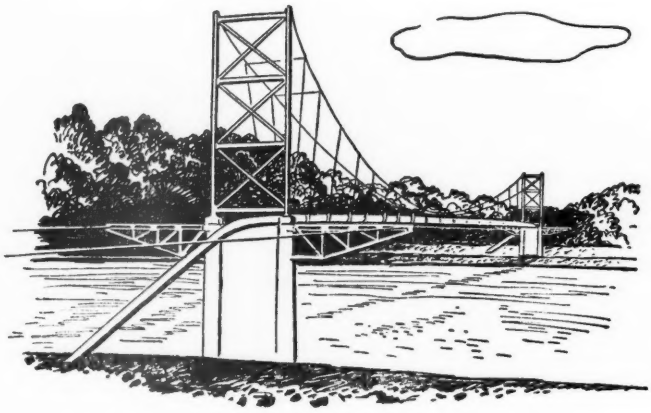
They are, therefore, useful guides for regulation and should be given consideration and weight by the commission for this reason. Consideration and weight should also be given to the prices contained in intrastate contracts and other nonjurisdictional contracts such as the direct industrial sales contracts of interstate pipelines.

Finally, the initial prices in new contracts between independent producers and interstate pipelines are useful in determining the economic feasibility of the interstate pipeline project, the salability of the gas in the market areas sought to be served at prices that include the cost of gas purchased by the pipeline, and also the requirements or effective demand for the gas at the point of production.

NONE of the large independent producer rate cases has, as yet, been decided by the Federal Power Commission, but there have been issued to date three important initial decisions by presiding examiners. Each of these decisions is, of course, subject to the right of review by the commission on appeal or upon its own motion. These decisions were: (1) the decision of Presiding Examiner Joseph Zwerdling, issued on May 2, 1956, in the Union Oil Company of California Case, Docket No. G-4331 et al., (2) the decision of Presiding Examiner Edward B. Marsh, issued August 14, 1956, in the Associated Oil & Gas Company Case, Docket No. G-8519 et al., and (3) the decision of Presiding Examiner Glen R. Law, issued September 11, 1956, in the

[7] Transcript of oral argument before the Federal Power Commission in the Matter of Union Oil Company of California, Docket No. G-4331 et al. Official Stenographers' Report, Vol. No. 11, p. 1055.

[8] In the Matter of Davidor & Davidor, Docket No. G-8550, issued March 22, 1956.



When Gas Legislation Will Be Needed

"IF it should turn out that it is impossible for the Federal Power Commission to depart from the cost method and adopt a more practical method for the regulation of independent producers without being reversed in the courts, then it seems clear that recommendations should be made to Congress to amend the Natural Gas Act in such a manner as to exclude cost as a controlling factor in determining just and reasonable rates for gas producers."

Sun Oil Company Case, Docket No. G-8288 et al.

IN all three of these cases the presiding examiners recommended the granting of the motions to dismiss that had been made by FPC staff counsel and other parties. In all three cases, the presiding examiners found that the producer applicants had failed to show that the rates or rate increases filed with the commission were "just and reasonable."

In the Union Oil Company Case, for example, the examiner stated:

> Since the producer-applicants in the instant case have not presented any evidence whatsoever on matters related to their financial interest or needs, they have not sustained their burden of proof. . . .[9]

In the Associated Oil & Gas Company Case the examiner stated:

> Had the applicants undertaken to show that the proposed increases were needed to obtain revenues for operating expenses, for preservation of applicants' financial integrity, for capital costs, for servicing of debt and payment of dividends, or for delayed rentals or costs of exploration and de-

[9] Examiner's (mimeographed) decision, page 54.

velopment, they might reasonably have hoped to succeed. . . .[10]

In the Sun Oil Company Case, the examiner stated:

> . . . In the present case, however, the problem faced by the applicants and which they have failed to meet by any substantial evidence is much more basic than the question of what shall be used as a rate base in these cases. They have not only presented no substantial evidence as to any suggested rate base, either determined by "original cost," "prudent investment," "fair value," "reproduction cost," "book cost," "reasonable value," or any other method or combination of methods. They have, in addition, made no effort to show the inadequacy of the existing rates, based upon any of the above methods or upon any other rational method . . .[11]

THE key question is whether the Federal Power Commission will uphold the point of view expressed by the presiding examiners in these cases. Will the Federal Power Commission interpret the ruling of the court of appeals in the Detroit Case to apply not only to companies that are essentially interstate pipelines but also to nonpipeline independent producers as well? If so, it may become necessary in the future for independent producers to present both:

> (1) Cost-of-service information, including original cost, operating expenses, depletion, depreciation, income taxes, rate of return, and allocation of both investment and expenses between jurisdictional and nonjurisdictional operations, and
>
> (2) Economic evidence such as incentives needed for maintenance of adequate supply, to explain or justify the difference between the rate or rate level sought by the producer applicant and the rate or rate level that would be determined through strict adherence to the traditional, depreciated original cost or prudent investment method of regulation.

The independent producers generally have taken the position that they should not be regulated on an original cost basis and that such a method of regulation cannot be applied successfully to their operations. They have pointed out that, unlike pipelines and distribution companies, producers do not have a monopoly or exclusive franchise to produce gas in any particular producing area. They point out further that they have none of the characteristics that are typical of natural gas pipelines, electric and gas distribution companies, or similar utilities. They state that there is a great variation in the cost of gas produced from different individual wells and fields and among different producers, so that the cost of service on a well-by-well basis or even company-by-company basis would lead to extremely wide variations in the calculated cost of gas per Mcf at the wellhead.

IT is not intended here to summarize all of the arguments that have been made as to the infirmities of the cost approach as applied to natural gas production. These have been set forth by many persons in the congressional hearings on the Harris-Fulbright Bill, HR 6645, before the House and Senate Committees on In-

[10] Examiner's (mimeographed) decision, page 35.
[11] Examiner's (mimeographed) decision, page 23.

terstate and Foreign Commerce, and in the congressional debates on this legislation.[12] Basically, the cost-of-service approach does not give the owner of the natural gas any compensation for the value of the gas in the ground other than that which may have been reflected in the acquisition cost of the land or gas lease. Should the Federal Power Commission apply the original cost approach to the independent producers regulated by it without including an allowance for the fair value of the gas in the ground, such action would most certainly result in a reduction in exploration and development activities and a refusal on the part of those owning uncommitted gas reserves to dedicate them to the interstate markets.

While there are many obvious differences between the business, economic, and legal status of independent producers and interstate pipelines, nevertheless there is nothing in the rate regulatory sections of the Natural Gas Act, §§ 4 and 5, to distinguish between these two classes of companies. The Federal Power Commission itself recognizes many differences between interstate pipelines and "independent producers" in its Orders 174, 174A, and 174B, issued on July 16, August 6, and December 17, 1954, respectively. Because of these differences the Federal Power Commission set up a separate procedure for independent producers with respect to the filing of rate schedules, applications for certificates of public convenience and necessity, and also with respect to accounting and statistical reporting requirements.

[12] U. S. House of Representatives debate, July 28, 1955. U. S. Senate debate, January 16, 1956, through February 6, 1956.

On November 17, 1954, a little less than six months following the Supreme Court decision in the Phillips Case, the Federal Power Commission issued a notice of proposed rule making with reference to "Consideration of Principles and Methods to Be Applied in the Fixing of Rates to Be Charged by Independent Producers for Natural Gas Sold in Interstate Commerce for Resale."[13] The commission at that time invited the submission of suggestions as to methods that it might apply in the public interest. It indicated that this was a matter of national importance. The commission invited all members of the industry to participate, including producers, gatherers, interstate pipeline companies, distributors, consumers, groups and associations, state commissions, municipalities, and so forth.

Following the oral argument that was held in January, 1955, the commission terminated the proceeding and issued an order stating in effect that the commission

[13] Docket No. R-142 (18 CFR, Part 154).

¶ "WHETHER *cost evidence will be held to be a* SINE QUA NON *of proof in producer rate cases has not yet been determined. However, in view of the fact that several presiding examiners have already recommended dismissal of rate increase applications because of the absence of cost-of-service or related economic and financial evidence, independent producers should be aware of the risk of dismissal unless this type of evidence is furnished.*"

found that it would not be in the public interest to issue any special rules or bill of particulars covering the principles and methods to be applied in the fixing of rates of independent producers. It was the opinion of the commission that the public interest would be better served by proceeding on a case-by-case basis. The commission dismissed the proceedings, saying:

> . . . However, the information gained in this proceeding convinces us that, on the basis of the record herein, we should not lay down any rules as to what would be necessary or appropriate for consideration in determining the just and reasonable rates of any independent producer subject to our jurisdiction under the Natural Gas Act . . .[14]

DURING the first six months of 1956, the commission reached a final decision in three independent producer rate cases. In all three of these cases the commission approved the rate increase sought by the independent producer. However, the producers in question are relatively small in size and the commission was careful to point out in each case that it was not setting a precedent that would be binding on its actions in future cases. For example, in the Wunderlich Development Company Case, the commission said:

> . . . We do not pass on the question of whether evidence of the character now before us would in any other case substantiate a given rate as just and reasonable . . .[15]

In the Davidor & Davidor Case, the commission said:

> . . . We cannot say, in view of the uncertain and nebulous state of the applicable law, that proof of the character here submitted would justify a rate increase in all or any other similar cases . . .[16]

And in the Christie, Mitchell & Mitchell Case, the commission said:

> . . . We adhere to what we said in Davidor & Davidor, Docket No. G-8550, that evidence of field prices and arm's-length bargaining alone does not sustain the burden of proof under a § 4 or § 5 proceeding . . .[17]

Thus the Federal Power Commission has not as yet set forth explicitly the types of evidence which in its judgment it is necessary for an independent producer to present in order to sustain the burden of proof in a producer rate case. Nevertheless, there have been several hints and suggestions contained in articles and public addresses made by various commissioners and staff members.[18] Also, there has been more than a suggestion in several of the recently issued decisions of presiding examiners, some of which have been referred to above.

[14] Order, issued December 1, 1955, Docket No. R-142.

[15] In the Matter of Wunderlich Development Company, Docket No. G-3940, issued March 19, 1956.

[16] In the Matter of Davidor & Davidor, Docket No. G-8550, issued March 22, 1956.

[17] In the Matter of Christie, Mitchell & Mitchell, Docket No. G-3669, issued June 29, 1956.

[18] See, for example, address by Federal Power Commission Chairman Jerome K. Kuykendall before the Texas Independent Producers and Royalty Owners Association at Dallas, Texas. April 16, 1956; article by Federal Power Commissioner William R. Connole, entitled "General Considerations: A Nation's Natural Gas Pains," *Georgetown Law Journal*, Vol. 44, No. 4, June, 1956; and address by Federal Power Commission General Counsel Willard W. Gatchell before the American Bar Association, Public Utility Law Section, Dallas, Texas, August 28, 1956, reprinted in PUBLIC UTILITIES FORTNIGHTLY, September 27, 1956, issue, p. 509.

ALTHOUGH Panhandle Eastern on October 29, 1956, petitioned the Supreme Court for a rehearing of its order, it appears likely that the recent decision of the court of appeals in the Detroit Case will become final. After the case has been remanded to the commission, it is probable that the commission will reopen the proceedings for the receipt of additional testimony, although some further findings could be made from the record in its present state. If the record is reopened in the Panhandle Eastern Case, it is reasonable to expect that the Federal Power Commission will permit other producers to reopen the record in their cases for the receipt of similar additional evidence.

It is difficult to appraise the significance to be attached to the action of the Supreme Court in refusing *certiorari*. Traditionally, the action of the Supreme Court on a petition for a writ of *certiorari* is not based on a consideration of the merits of the litigation but reflects, among other things, the importance of the case on a nation-wide basis. In considering the rather special function of the *certiorari* procedure, it may be of some significance that the Solicitor General of the United States did not join the commission in the petition to the Supreme Court, although he did participate actively in the litigation before the Supreme Court in the Phillips Case. Accordingly, it may be inferred that both the Solicitor General and the Supreme Court may have concluded that the Detroit Case was *sui generis* and not of industry-wide application. More interesting and important, however, is the scope which the commission will attach to the mandate of the court of appeals.

Whether cost evidence will be held to be a *sine qua non* of proof in producer rate cases has not yet been determined.

However, in view of the fact that several presiding examiners have already recommended dismissal of rate increase applications because of the absence of cost-of-service or related economic and financial evidence, independent producers should be aware of the risk of dismissal unless this type of evidence is furnished. This risk will be heightened in the event the Federal Power Commission sustains the examiners in the above-mentioned initial decisions.

INDEPENDENT producers are now confronted with serious problems in preparing for rate cases. They have not been keeping their books in accordance with any "Uniform Classification of Accounts" such as is prescribed by the Federal Power Commission for interstate pipelines. It may be that at some future date the Federal Power Commission will prescribe some standardized accounting procedure for independent producers. However, quite apart from conventional accounting procedures, there are many complicated and unsolved questions with respect to determination of producer costs, such as:

(1) What is the actual gas investment cost of the independent producer? Some items of cost may have been capitalized by one producer and expensed by another. Does a producer's past accounting practice determine his present actual investment or rate base?

(2) Since a cost presentation should show economic cost rather than merely accounting cost or cost as per books, how shall the value of gas reserves be ascertained? Assuming agreement as to

the size of the gas reserves and the probable annual rate of production, what cost or value of gas in the ground shall be included in determining the total cost of production?

(3) How shall exploration and development costs be allocated between natural gas and oil production?

(4) How shall depletion, depreciation, and income taxes be accounted for?

(5) What rate of return shall be assumed as necessary to attract capital for exploration, development, and production?

In addition to the possible necessity of presenting cost evidence, the independent producer may also have to present evidence as to the incentives required to maintain an adequate supply of gas. The independent producer should be able to show through evidence that the increase in rate applied for is *necessary* for the purpose of encouraging exploration and development. To accomplish this it may be useful to go beyond the operations of a particular producer and develop information in terms of a multiple number of producers in an area or for the country as a whole.

It is generally conceded that the search for and discovery of new large gas reserves is becoming more and more difficult and more and more expensive each year. No one will deny that the cost of replacing the nation's known gas reserves will far exceed their historical cost. If the gas industry is to meet present and future requirements, it may be necessary to include in the price of gas currently being produced a cost or allowance factor high enough to cover the replacement of the reserves being depleted. It is my opinion that this can be accomplished by the Federal Power Commission under the Natural Gas Act as it is presently drawn. Others may disagree with this view. However, this much seems certain: If it should turn out that it is impossible for the Federal Power Commission to depart from the cost method and adopt a more practical method for the regulation of independent producers without being reversed in the courts, then it seems clear that recommendations should be made to Congress to amend the Natural Gas Act in such a manner as to exclude cost as a controlling factor in determining just and reasonable rates for gas producers.

Of course, this article is not intended as an analysis of all the pros and cons of various amendments to the Natural Gas Act which have been proposed. The issue of cost of service is only one of many considerations which have been advanced in support of remedial legislation.

"INDUSTRY *will go bankrupt if it reverts to 1937 thinking and persists in compulsory retirement on a rigid basis. At age sixty-five, the present life expectancy of a white male worker is in excess of 14.6 years, and the use of his skills should be projected beyond sixty-five if practical, even though it might be on a reduced or part-time basis.*"

—BEN A. LINDBERG,
Director, School of Commerce, University of Alberta, Canada.

Property Tax Equalization in California

After seventeen years of attempting with indifferent success to achieve intercounty equalization of property tax assessments by moral suasion, the California State Board of Equalization increased the assessed values of nonutility properties in 13 of the state's 58 counties in amounts ranging from 19 to 39 per cent. Why the board felt this to be necessary and why it decided against even more drastic action are told by a member of the board.

By ROBERT E. McDAVID*

THE postwar years have witnessed a marked revival of interest in equalization of property tax assessment levels in many states of the Union. During the 1920's and the thirties, the property tax had been largely or totally abandoned as a source of state government support, and intercounty equalization powers had fallen into disuse. Large gaps had frequently developed between the levels at which centrally assessed utility properties and locally assessed properties were valued for tax purposes, but equalization agencies were often indifferent or helpless. Recently, assessed values have been widely used to distribute state aid to local governments, and this had restored financial pressures for intercounty equalization of local assessment levels. Yet to be tackled in many states, including California, is the problem of equalizing state assessment levels with local levels.

Few taxes have been as roundly denounced over the years as the property tax, and few aspects of property tax administration have been more neglected and mismanaged than intercounty equalization of assessment levels. One writer has likened intercounty equalization to a mule —no pride in ancestry and no hope of progeny. The California State Board of Equalization, after the action which it took in 1955, is of the opinion that the similarity is not limited to these two charac-

*Member, California State Board of Equalization. This article is adapted from a paper delivered at the annual conference of the National Association of Tax Administrators in Cleveland, Ohio, on June 1, 1956.

teristics. Intercounty equalization is a stubborn problem, and it is the source of numerous kicks.

California is now the second most populous state in the nation, with more than 13,000,000 inhabitants. It is also a large state, with more than 156,000 square miles of land area divided into 58 counties having a combined total of 5,000,000 land parcels. These parcels are situated in over 12,500 different tax-rate areas and are taxed by almost 5,000 local taxing districts.

THE tangible property in California is assessed at more than $20 billion, and the total taxes on those properties for the 1955-56 fiscal year were more than one and one-third billion dollars—almost $95 for every person in the state. California is highly industrialized, with a wide diversification of industry. It also leads the nation in dollar volume of agricultural products and its 7,000,000 automobiles far exceed those of any other state. All of these elements contribute to the complexities of California's tax administration.

The California State Board of Equalization assesses the tangible property of the major public utilities; all other tangible property is assessed by local assessors. Both state-assessed properties and locally assessed properties are taxed locally at a common tax rate. Whenever properties subject to the same tax rate are assessed by different agencies, equalization is required to assure equality of the tax burden.

The Equalization Process

ONE of the constitutional functions of the state board is to equalize the assessment levels of tangible property in all counties of the state by issuing intercounty equalization orders.

Intercounty equalization, briefly explained, is the process of first determining the ratio of the assessed value of tangible property to its market value in all counties of the state, and then adjusting the assessment rolls of the low counties upward, or the high counties downward, by whatever percentage is sufficient to bring the assessment ratios to a substantially uniform level. For example, if it is found that a county is assessing at 16⅔ per cent of value, and the board establishes a statewide standard of 25 per cent, the board is obliged to issue an order to increase that county's assessments by one-half so that its assessment level will comply with the standard.

DURING the fiscal year 1954-55, the board conducted a statewide survey of assessment practices—the first such survey for several years. That survey disclosed that local assessors had not maintained their assessment levels at the traditional 50 per cent ratio of full value. The statewide ratio of assessed value to full value was found to be approximately 25 per cent.

Perhaps many reasons could be advanced for the wide spread between full value and assessed value. For example, the great migration to the West, the rapid industrialization of California, economic inflation resulting from wars and political philosophies, all have tended to disrupt California property values.

Assessing at fractional value seems to be permissible, but if equity of the tax burden is to be maintained, all assessments of properties subject to the same tax rate

must be made at the same ratio to value. Annual intercounty equalization is the only way to keep property assessments at a uniform level.

Value Not Easy to Determine

THE California state Constitution requires all property to be assessed at full value. Value, as used to establish a base for levying taxes, is not always easy to define. The simple definition of "the price a willing buyer would pay to a willing seller" can seldom be applied in establishing values for assessment purposes. The property being assessed may be of a type that has no readily determinable "market value," as evidenced by records of exchanges and sales.

A striking example of such a property is a large public utility owned by many stockholders. Large utilities are seldom sold, except for the normal trading of shares of their capital stock in the public market. In such a case, the so-called exchange value of an entire utility property cannot be used because it cannot be determined. However, a reasonable judgment of market value can be reached by applying other indices of value which reflect the character and economic potential of the property in question.

Historical Background of Equalization In California

THE need for intercounty equalization in California began in the early days when practically all of the revenue for operating the state government was derived from taxes on tangible property. The tax base for both local and state taxes was then established by the county assessors. Each county assessor sought to minimize his constituents' contribution to the cost of operating the state government, or at least to protect them from bearing more than their proper share of that cost, by assessing at as low a level as any other county was assessed—and preferably a little lower. The state board was charged with the responsibility of maintaining statewide equalization of assessments in order to assure equality of the state tax burden.

From 1879 to 1910, the State Board of Equalization assessed certain intercounty railroad properties. All other tangible property was assessed by local assessors. This, too, called for equalization by the state agency.

A constitutional amendment in 1910 removed all public utilities from the property tax rolls and substituted a gross receipts tax which was paid directly to the

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state for the support of state government.

The gross receipts tax continued for twenty-five years—until 1935.

IN 1933, the people of California approved a constitutional amendment which became operative in 1935. This amendment removed the gross receipts tax on public utilities and returned utility properties to the local tax rolls. It also revived the method of assessing public utility property that had been established in 1879 and extended the assessment jurisdiction of the State Board of Equalization from railroads to all major public utility properties.

The California Constitution, as amended in 1933, requires that public utility property be subject to taxation "to the same extent and in the same manner as other property." When the state board received its new responsibilities in 1935, it had not performed its intercounty equalization function, to any extent, for several years, so it had no current data on local assessment ratios. It was faced with the problem of immediately determining the ratios of assessments used by the fifty-eight county assessors in order to comply with the constitutional provision requiring equality in assessed values. In order to assure this equality, the board undertook to establish all assessments at 50 per cent of value.

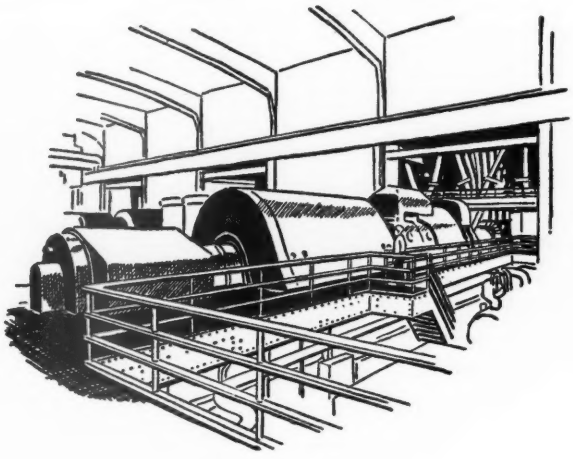
State Board Assesses Utility Properties

DURING the fiscal year 1934-35, the state board appraised all public utility property in California at full value and certified 50 per cent of that value to the tax authorities in the various counties and districts wherein the utility holdings were located. That process has been repeated every year since 1935.

As previously mentioned, the statewide average assessment level of locally assessed property in California is now about 25 per cent of value. Thus it would seem that we no longer have equality of the tax burden between that property and state-assessed property, since the utility assessments are about twice as high as those of common property.

There are several reasons why the board did not reduce the utility assessments in 1955 to coincide with local assessment levels. One reason is that there is no widespread public or legislative acceptance of the board's opinion that it is assessing public utility property at a substantially higher level than it finds for locally assessed property. On the contrary, there have been assertions that public utility property is assessed at much less than 50 per cent of its full value. California law requires that the unit value of a utility system be divided into many fragments, and the board's critics have found a few of these fragments which appeared to be assessed at a relatively low level. From these isolated cases those who wish to discredit the board's findings claim in loud tones that all utility property is assessed at a low level.

IN 1953 a senate interim committee on state and local taxation made a statewide study of property assessments and equalization in California. That study substantiated the board's views on the values of utility properties. Some of those who were responsible for this conclusion have apparently lost faith in it, however, and no other outside experts have compared the board's assessments of utilities



Who Really Pays Utility Taxes

"TAXES on utility properties are paid to the counties, cities, and districts wherein the properties are located, but persons residing in populous areas with few, if any, major utility installations represent the great majority of utility customers. It is those people who are paying most of the utility bills made higher by high utility assessments, while the other districts and counties are enjoying most of the lower tax rates on common property as a result of a substantial portion of their local government operating budgets now being financed from utility taxes."

with independently determined unit values. The board has requested the legislature to make another study, but as yet no such study has been made. The board is reluctant to make any major changes in its present policies in the absence of a second study or more widespread acceptance of the results of the first one.

We must remember that the present apparent inequity between the assessment ratio of utility property and common property is the result of variances that have accrued over a 20-year period. It is difficult to solve this problem in one year. The ad valorem property tax on California utility properties is about $155,000,000 per year. If the apparent long-existing inequity between utility property and common property were to be immediately rectified, it would mean a shift of about $75,000,000 of tax burden from utilities to common property, resulting in serious economic disturbance.

BECAUSE of California's method of allocating utility assessments to the

situs of the property, large concentrations of utility values are found in certain tax districts. For example, there is one elementary school district in California where the utility roll last year contributed more than 68 per cent of the local tax base. In another school district the utility roll exceeded 60 per cent. There are other examples of equally large or larger concentrations of utility properties. If the excessive taxes now paid by utilities were immediately shifted to common property owners, the result would be little short of financial disaster for these districts.

A major reduction of utility assessments and the attendant property taxes might be expected to convert a substantial part of the utility service bills into tax bills. Utility companies include property taxes in the expenses that they are allowed to recover through their service rates. Therefore, if the utilities' property taxes are substantially reduced, it simply means that utility service bills will go down, but other property owners will have to pay higher taxes on their homes, farms, and business properties. Thus, any given "common" property taxpayer may find that the reduction in his utility bills is offset by an increase in his tax bill.

TAXES on utility properties are paid to the counties, cities, and districts wherein the properties are located, but persons residing in populous areas with few, if any, major utility installations represent the great majority of utility customers. It is those people who are paying most of the utility bills made higher by high utility assessments, while the other districts and counties are enjoying most of the lower tax rates on common property as a result of a substantial portion of their local government operating budgets now being financed from utility taxes. Thus we cannot blithely dismiss the problem of equalization between state-assessed and locally assessed property by wishful thinking that it is of no consequence to consumers.

The owners of utility properties—the stockholders—on the other hand have little to gain from intercounty equalization, for any substantial reduction in utility taxes will inevitably be reflected in lower service rates.

Perhaps the greatest thing to be gained from equalization of state and locally assessed property is the preservation of private enterprise in the public utility field. If a privately owned public utility is to pay disproportionately high taxes and government-owned utilities are to pay none at all, socialization of the industry is only a matter of time.

State Aids Distributed in Relation to Assessed Values

DURING 1945, another need for intercounty equalization in California was created when the state began to distribute aids to local governments pursuant to formulas which involved assessed values. These distributions are made in inverse relation to assessed values—the higher the assessments, the less state aid; and the lower the assessed valuations, the more state aid.

School apportionments were the first of these state aids geared to assessed valuations. Grants for capital outlays have been made to "impoverished school districts" which aggregate millions of dollars. To qualify for the "impoverished" label, a school district has to have bonds out-

standing in an amount equal to 4¾ per cent of its assessed value and a school tax rate within one-half cent of the statutory maximum. A school district which was assessed at a relatively low level appeared by these criteria to be "impoverished" when an equally needy district with a relatively high assessment level was presumed to be prosperous. Millions of dollars of erroneous distributions have been made on the false assumption that assessed values truly measured differences in taxable resources.

CALIFORNIA also distributes approximately $100,000,000 a year in school equalization aid to finance current operating costs. Stated in its simplest terms, a school equalization grant from the state to a local school district is one which makes up the difference between the amount that will be raised in local taxes with a given tax rate and the amount that is needed to operate the local schools at the desired minimum standards.

These aids are also distributed in inverse relation to assessed values—the higher the assessments, the less state aid; and the lower the assessed valuations, the more state aid. It is obvious that if taxable property is assessed at different levels in different counties, this school equalization aid is distributed in a haphazard manner and does not fulfill its intended function.

Suppose an elementary school district has $10,000 of assessed value per child in a.d.a. Applying a 60-cent local tax rate to the district's assessed value, its own contribution to the operating costs of its schools would be $60 per pupil. Now suppose that this school district is in a county which assesses its property at one-sixth of value. Next to it, we will suppose, is a county whose assessor is assessing at one-fourth of full value. An elementary school district in this second county, with an equal amount of property per child, would have $15,000 of assessed value per pupil instead of $10,000, and the local contribution to its school operating cost would be $90 per pupil. The local contribution to the second district's foundation program is 50 per cent higher than that of the first district although both have the same resources per pupil.

Conversely, the state's contribution to the foundation program is larger in the first district than in the second since it makes up the difference between the amount of the foundation program and the local contribution. This injustice results from differences in assessment levels between the counties. It can only be corrected by intercounty equalization.

INTERCOUNTY equalization is also required in California for equitable distribution of aid to the blind, and aid to dependent children, for which persons are ineligible if they own real property assessed at specified amounts in excess of indebtedness secured by the property. If we should have another depression—God forbid!—the state would contribute to the counties' unemployment relief costs in proportions that depend upon the ratio of such costs to the assessed value of the county.

Intercounty equalization is also essential for the correct determination of veterans' property tax exemptions. Taxpayers residing in counties with high assessment levels are paying a large share of the various aids to those counties which present a false picture of poverty by assessing at low ratios to value. No tax-

payer, whether an individual home owner, businessman, industrial corporation, or public utility, should be required to pay more than his fair share of taxes.

Intercounty Equalization Must Continue

CALIFORNIA'S aid programs were based upon the premise, perhaps erroneous, that intercounty equalization existed at the time those laws were enacted, and obviously upon the belief that equalization would be constantly maintained.

Partial equalization of the tax burden has been achieved in California by raising the assessment levels in 13 counties during 1955. Many of California's local assessors are now in the process of complete reappraisal programs of all tangible property in their jurisdictions. This action will further narrow the gap between the assessment levels for state and locally assessed property and will also result in a more equitable distribution of the tax burden among common property owners by achieving greater intracounty equalization.

There should be unanimity as to the purpose of government, but that is not always the case. In California the State Board of Equalization is constantly plagued by certain persons with ulterior motives and self-serving interests who strive to create conflicts between local assessors and the board. Much propaganda is being spread that the State Board of Equalization is working towards taking over the assessment functions now performed by local assessors. The board has no such plans. It has no desire, nor does it have the constitutional authority, to perform functions that are now assigned to local assessors.

THE board is fully cognizant of its responsibility to the state and to the taxpayers. It has recently invited civic organizations and trade associations to study its intercounty equalization work. Perhaps new legislation should be passed that would prescribe better methods of distributing state aid. There also may be a better way to assess and tax utility properties.

The responsibilities of the State Board of Equalization relative to intercounty equalization are clearly defined in the California state Constitution. Existing provisions of the Constitution and the statutes require constant intercounty equalization if there is to be an equitable distribution of the tax burden among *all* the taxpayers in California, and if veterans and needy persons are to be treated the same in one county as in another. The board cannot continue to ignore glaring inequities which are in violation of the Constitution.

Sometimes the most difficult and courageous course is the only intelligent action to take. The board has no alternative except to continue to perform its intercounty equalization functions to the best of its ability—and that is exactly what it intends to do.

¶ "THE *function of competent administrators in business and governmental affairs is to meet unfolding problems with foresight and with knowledgeable design.*"

—M. S. RUKEYSER,
Columnist.

Developments in Irregular Air-carrier Operations

During the past year some forty-nine irregular carriers have been authorized for the first time by the Civil Aeronautics Board to engage in regular scheduled operations. What has been the impact on the established regular air carriers? How does this innovation stack up against settled regulatory principles?

By LAWRENCE L. STENTZEL*

One of the most interesting developments in the regulation of the air transport industry in the past year was the Civil Aeronautics Board's decision of November, 1955, in the large irregular air-carrier investigation. As a result of this decision some forty-nine irregular carriers, or so-called "nonskeds," were authorized for the first time to engage in regularly scheduled, individually ticketed, passenger operations on a limited basis, in addition to their charter and other services.

Under the decision each irregular carrier was authorized to conduct a maximum of ten flights per month in each direction between every pair of cities in the United States which it chooses to serve. If this decision is ultimately upheld in the courts, it may have a profound effect upon all participants in domestic scheduled air transportation.

*Member of the New York bar; associated with Hale, Stimson, Russell & Nickerson, New York, New York. For additional personal note, see "Pages with the Editors."

History of Irregular Carrier Regulation

BEFORE turning to the decision it will be helpful to outline briefly the history of the regulation of irregular air carriers. The Civil Aeronautics Act was adopted in 1938 in response to demands for an integrated national air transportation policy and complaints of unregulated competition. The keystone of the act was its provision for controlled entry into the field of air transportation. This objective was effectuated by means of a requirement that any applicant to perform common carriage by air must first obtain a certificate of public convenience and necessity. A certificate can only be obtained after a public hearing, and the applicant must demonstrate a public need for the proposed services, as well as its own fitness and ability to provide them. The certificate specifies the route system over which service may be provided and requires the carrier to provide adequate services.

However, the Civil Aeronautics Act also contains a provision which authorizes the board to exempt any applicant from compliance with the certificate of convenience and necessity requirement where the applicant can show that compliance would be unduly burdensome due to the limited extent of its operations or unusual circumstances affecting such operations.

SOON after the enactment of the Civil Aeronautics Act a general regulation was promulgated exempting all nonscheduled carriers from compliance with the certificate of public convenience and necessity requirement. At that time the nonscheduled or irregular carrier group was composed primarily of small, fixed base operators performing maintenance services and engaging in only occasional air carriage for hire. Until the end of World War II there was virtually no conflict between the activities of the irregular and certificated carriers.

The irregular carriers or so-called "nonskeds," as we know them today, are the outgrowth of a combination of two factors. The first was the government's policy of disposing of surplus large transport aircraft for very low prices at the end of World War II. The second was the removal of wartime restrictions on air travel and the consequent large increase in demand for air transportation which the certificated carriers were not able to meet immediately.

The irregular carriers which acquired these surplus aircraft initially confined their passenger activities to the carriage of overflow traffic which the certificated carriers were not able to handle. It was not long, however, before some of the irregulars began concentrating on the carriage of passengers in the most lucrative long-haul air transportation markets in competition with certificated carriers.

THE regulation under which the irregulars operated specified that their passenger services had to be of a "limited, irregular, and sporadic" nature. This regulation proved difficult to enforce, and attempted modifications failed to alleviate this difficulty. As a result, widespread violations of the regulations took place. Those irregulars concentrating on individually ticketed passenger services early perceived that they could not achieve any substantial penetration of lucrative long-haul passenger markets by operating individually and observing the regulation. A number of the irregulars also saw that

by joining forces with several other irregulars and thereby integrating a number of ostensibly irregular schedules, they could offer to the public a service which would not be too dissimilar from the services of certificated carriers. The services of these nonsked groups were merchandised under common trade names and through common ticket agents.

In 1949, as a result of difficulties encountered in enforcing the irregular carrier regulation, the Civil Aeronautics Board ordered investigations of all holders of irregular carrier letters of registration. In 1951, after several intervening procedural steps, all of these proceedings involving irregular carriers were consolidated into the large irregular air-carrier investigation, which is the subject of this discussion.

THERE were originally sixty-four irregular carrier applicants in this proceeding, virtually all of whom were requesting permission to perform regularly scheduled passenger services in addition to their charter and other services. The proceeding was limited in scope to applications by irregular carriers for authority to perform services "additional and supplemental" to the services of certificated carriers and not merely duplicative of or directly competitive with those services. The importance which the air transport industry attaches to this proceeding is perhaps indicated by the fact that there are eighty-six parties representing all facets of the industry, and over two hundred applications are in issue. The record has achieved the voluminous proportions of 50,000 pages.

Domestic scheduled air services are currently provided by twenty-five certificated carriers to approximately 540 United States cities. Twelve of these carriers are trunk lines, ten of which are no longer receiving federal subsidy. The remaining thirteen are area, or so-called local service, carriers, all of which are subsidized. If the Civil Aeronautics Board's order of November, 1955, is ultimately sustained, it may have the effect of virtually tripling the number of participants in domestic scheduled air transportation, although the forty-nine new entrants into this field will be limited as to the amount of service which any individual carrier is permitted to provide between any two cities.

Position of Irregular Carriers

TURNING to the investigation itself, consideration will first be given to the contentions of the irregular carriers. The

¶ *"ONE of the most interesting developments in the regulation of the air transport industry in the past year was the Civil Aeronautics Board's decision of November, 1955, in the large irregular air-carrier investigation. As a result of this decision some forty-nine irregular carriers, or so-called 'nonskeds,' were authorized for the first time to engage in regularly scheduled, individually ticketed, passenger operations on a limited basis, in addition to their charter and other services."*

irregulars may be classified into two groups, whose positions as to the rôle of irregular carriers in the air transport industry differed to some extent. The Independent Military Air Transport Association and its members maintained that the primary rôle of the irregulars should be the performance of charter services, although the members of this group also requested permissive authority to perform regularly scheduled passenger services. The Aircoach Transport Association and its members, on the other hand, contended that the primary rôle of the irregulars in the industry should be the performance of low-fare air-coach services on a regularly scheduled, frequent basis.

Both groups joined in urging the need of the air transport industry for a new group of participants having broad permissive operating rights without any corresponding obligations to provide service over specific route systems. Such a group, in their view, would possess the flexibility and initiative to meet newly developing demands for air transportation and would not be encumbered with the inertia allegedly suffered by carriers having fixed obligations to provide adequate services over designated routes.

A NUMBER of arguments were advanced by the irregulars in support of their request for authority to provide regularly scheduled passenger services. First, they contended that such authority would permit them to accommodate peak traffic demands which the certificated carriers are unable to meet. Second, they urged that their entry into the field of regularly scheduled passenger services would provide a competitive spur for the certificated carriers and would furnish the Civil Aeronautics Board with a yardstick of trunkline efficiency.

They further maintained that the revenues they would derive from regularly scheduled services would help them to maintain their fleets, ground crews, and pilots as a reserve pool of airlift facilities for national defense purposes. This added source of revenue, they argued, would also assist them in the future development of their charter services which are an integral part of our air transportation system.

In the view of the irregular carriers they were entitled to participate in regularly scheduled passenger services in recognition of their pioneer activities in the development of air-coach services. They believed that the government, having encouraged their investment in large transport equipment, was obligated to help them attain a more secure position in the industry. They pointed out that many of their number had been long established as going concerns engaging in a significant volume of individually ticketed passenger transportation albeit on an irregular basis.

Finally they suggested that their admission to the field of regularly scheduled passenger services would alleviate the enforcement difficulties encountered by the Civil Aeronautics Board in attempting to secure compliance with the old regulations governing irregular carriers.

Positions of Other Parties

TURNING to the positions of other parties to the proceeding, bureau counsel concluded that the irregulars should be certificated for the performance of charter and cargo services, but should not be

Irregular *versus* Certificated Carriers

"THE final chapters remain to be written in this struggle between the irregulars and the certificated carriers over the rôle of the former in scheduled passenger transportation. At this point, all of the irregular carriers have completed presentation of evidence to the examiners on the question of individual fitness, but the examiners have not yet made any specific recommendations. In the meantime, the Civil Aeronautics Board has requested reconsideration of the court's order reversing the board's decision. . . . If the court of appeals decision is ultimately upheld, the Civil Aeronautics Board may again be confronted with the necessity of defining the rôle of the irregular carriers in scheduled passenger transportation."

authorized to participate in regularly scheduled, individually ticketed passenger operations.

The certificated carriers likewise opposed entry of the irregulars into the field of scheduled passenger services. The certificated carriers pointed out that their existing services, including air coach, are entirely adequate. In support of this they referred to three recent route cases decided by the Civil Aeronautics Board, as a result of which a substantial amount of competitive services had been authorized in the country's major air transportation markets. In the view of the scheduled carriers, charter and cargo operations by the irregulars would be entirely feasible from an economic standpoint. Moreover, they felt that permitting participation by the irregulars in regularly scheduled passenger services would divert them from their primary objective of further developing their charter services.

THE scheduled carriers emphasized that existing services are already intensively competitive, pointing out that over 97 per cent of the revenue miles flown in the 50 major air transportation markets of the United States are competi-

tive and that many of these markets are now receiving service from three, four, or five different certificated carriers. Indeed, the New York-Washington, D. C., market is currently being served by seven different airlines with the prospect of an eighth at the conclusion of a pending route proceeding. In the view of the certificated carriers, the irregulars are seeking authority to perform a "cream-skimming" type of operation which would enable them to jump from one lucrative long-haul market to another without being obligated to provide service to any of the numerous marginal or unprofitable cities.

The certificated carriers also pointed to the fact that additional competition has traditionally been authorized only as a result of careful analysis of the economic conditions prevailing in specific markets and that no such evidence was presented in this proceeding. The irregular carrier applicants had not proposed to assume any obligations to provide service to designated markets.

It was the position of some of the smaller carriers that the Civil Aeronautics Board's primary obligation should be the strengthening of the weaker members of the existing industry before admitting a large number of new carriers, particularly where these carriers have requested broad permissive operating rights without any corresponding service obligations. Finally, the certificated carriers maintained that permitting limited participation by the irregulars in regularly scheduled passenger services would increase rather than reduce the board's enforcement problems.

A number of Better Business bureaus appeared at the hearings in opposition to the continuation of certain abusive practices by some of the irregulars. Included among the practices the Better Business bureaus objected to were the use of different flight equipment than advertised; failure to serve advertised meals; long delays in departure; unavailability of space after it had been confirmed; refusal to make refunds; failure to honor return portions of round-trip tickets; false advertising of insurance coverage; imposition of extra charges; and termination of trips other than at destination.

Initial Decision

The Civil Aeronautics Board's examiners, in their initial decision, concluded that the primary function of the irregular carriers in the air transport industry should be the performance of charter and cargo services. However, the examiners recommended limited participation by the irregulars in regularly scheduled passenger services. The limitation the examiners proposed would have permitted each irregular to provide a maximum of three scheduled round trips per month between each pair of points.

In the opinion of the examiners, such limited participation in regularly scheduled services would have enabled the irregulars to alleviate peak short-run travel demands without allowing them to achieve substantial penetration of certificated carrier markets. These markets the examiners believed were needed to support existing scheduled carriers.

Decision of Civil Aeronautics Board

The Civil Aeronautics Board approved the examiners' recommendation of broad cargo and charter rights for

the irregular carriers, but the board substantially enlarged the participation of the irregulars in regularly scheduled, individually ticketed passenger services. As already pointed out, the board authorized each irregular carrier to provide up to ten trips per month in each direction between each pair of cities which the irregular wishes to serve. The board announced as its future policy the strengthening of the irregular carriers, pointing to the facts that the trunk carriers, at least, are experiencing a prosperous era and that only two of them are still receiving federal subsidy.

The board deemed that the practical effect of its order would be merely to eliminate the irregularity requirement, inasmuch as the old regulation for practical purposes permitted from eight to twelve round trips per month. Although the board thought its decision would have only negligible competitive effects upon the scheduled carriers, it retained jurisdiction to revise the 10-flight limitation as future circumstances might warrant.

SINCE the record was incomplete on the question of fitness and ability of individual irregular carriers to provide the services they proposed, the board returned the proceeding to the examiners for the hearing of further evidence on this issue. In the interim, the board authorized the forty-nine irregular carriers currently operating to avail themselves immediately of the 10-flight privilege.

Two of the five members of the Civil Aeronautics Board dissented from the 10-flight limitation aspect of the decision. They thought that the volume of scheduled services authorized was outside the scope of the proceeding, since such services would be neither "additional nor supplemental" to existing services of certificated carriers. The dissenters also believed that the 10-flight limitation was not in the public interest, since it conferred broad operating rights without any corresponding service obligations and would encourage permissive services by the irregulars in direct competition with the scheduled carriers.

Judicial Review

THE decision of the Civil Aeronautics Board was appealed by the certificated carriers to the court of appeals for the District of Columbia circuit. The appeal raised three purely legal issues, all evidentiary matters having been deferred by a pretrial order. The first issue was whether the volume of service permissible under the 10-flight limitation could properly be authorized by the board in exercise of its exemption power rather than by certificate of public convenience and necessity. The second issue was whether the board's order was supported by adequate findings of fact. Finally, the petitioners questioned whether the 10-flight limitation was within the scope of the proceedings as defined in the original consolidation order limiting the hearing to applications proposing services "supplemental or additional" to existing scheduled services.

Unfortunately, space does not permit a detailed analysis of these legal issues, the first of which, in particular, the petitioners regarded as a question of primary importance. Suffice it to say that the court of appeals reversed the Civil Aeronautics Board's decision on the ground that it contained only a naked conclusion in the

language of the statute and was not supported by the requisite findings of fact.

Future of Investigation

THE final chapters remain to be written in this struggle between the irregulars and the certificated carriers over the rôle of the former in scheduled passenger transportation. At this point, all of the irregular carriers have completed presentation of evidence to the examiners on the question of individual fitness, but the examiners have not yet made any specific recommendations. In the meantime, the Civil Aeronautics Board has requested reconsideration of the court's order reversing the board's decision. The court has not yet acted upon this request.

If the court of appeals decision is ultimately upheld, the Civil Aeronautics Board may again be confronted with the necessity of defining the rôle of the irregular carriers in scheduled passenger transportation. It should be pointed out in this connection that two of the three majority members of the board have been replaced by new appointees since the decision was announced in November, 1955. The two dissenting members still are on the board. It remains to be seen whether the Civil Aeronautics Board as it is now constituted will be able or inclined to make the findings of fact necessary to reaffirm the 10-flight limitation as the criterion of irregular carrier participation in scheduled passenger services.

Understanding—Key to Communication

"COMMUNICATION *leads to understanding. What people do not understand, they either misunderstand or suspect. Understanding is achieved in no other way except through communication.*

"All human relations are contingent upon communication. The effectiveness of human co-operation is in direct ratio to the effectiveness of the communication.

"A trade or business organization is a co-operative enterprise; it requires unanimous or near unanimous agreement among members for its progress. This will not be forthcoming if effective communication is lacking. . . .

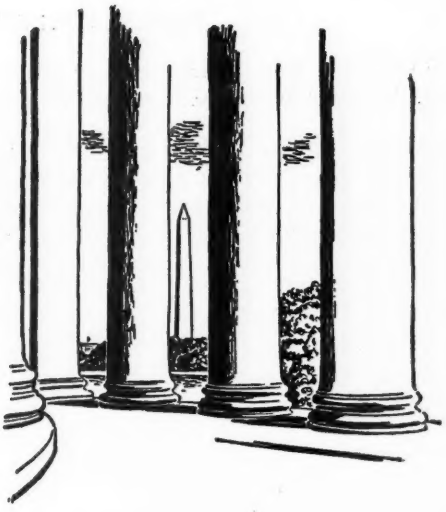
"Psychologists have learned that face-to-face communication is most effective; oral and visual presentation (as in an illustrated lecture or sound motion picture) is next best; oral presentation alone runs third, and visual or printed material fourth. Economic considerations usually require more dependence than is justified on printed matter; but don't neglect more effective means.

"To be most effective, each individual message should be pointed toward the interests of its intended audience; and it should be phrased in terms that its audience will understand. The important thing about a message is not how much can be put into it, but how much can be taken out. Keep it simple.

"As in education, so in communication, REPETITION *is essential. I once knew an instructor who expressed his teaching philosophy in these words: 'First, tell them what you are going to tell them; then tell them; and, finally, tell them what you told them.'"*

—J. CARROLL BATEMAN,
Director of public relations,
Milk Industry Foundation.

Washington and the Utilities



A New Gas Bill

It has been predicted that the chances of any kind of legislation designed to relieve or clarify the burden of Federal Power Commission control over natural gas producers will depend on whether or not there is more unity among the sponsors in the next Congress. The hope of reviving some sort of legislation was renewed with the overwhelming re-election of President Eisenhower. Admittedly, the gas producers could have looked for no help at all, along this line, if the Stevenson-Kefauver ticket had prevailed. Such hopes were reborn in the southwestern gas-producing states (all of which went for Eisenhower) in the recollection of a White House promise of sympathetic consideration of the natural gas producer's case.

It will be recalled that President Eisenhower, in his veto message of the Harris-Fulbright Bill last spring, said that he would consider and sign reasonable legislation, provided there were safeguards to protect consumers. Yet, the surrounding circumstances leading to the veto have made any such legislation so risky politically that only a common front of the three segments of the gas industry, plus regulatory authorities, headed by the FPC, would insure prompt attention and action by congressional leaders and committee members. Any further display of disharmony or recrimination, such as marked passage of the Harris-Fulbright Bill, would probably result in no legislation.

Speaking before the annual meeting of the Southwest Purchasing Conference in Fort Worth, Texas, on the day after the election, John W. Boatwright, chief economist of Standard Oil Company (Indiana), said that he hoped others would support the industry. Government controls have, he noted, affected energy sources throughout the Southwest.

Although producers have lived up to contracts made before the Supreme Court decision giving the FPC jurisdiction over gas producers, noncommitted reserves have been differently created, Mr. Boatwright added. He cited actions followed by producers as (1) selling proved acreage to a pipeline company, withdrawing from production, (2) holding proved reserves of gas off the market completely,

and (3) turning to intrastate markets which are not within the FPC control.

RECENT actions of the U. S. Supreme Court in refusing to review lower court decisions regarded as unfavorable to gas producers are likewise stirring up proponents of gas legislation. They contend that even if the FPC does try to use more elastic and reasonable standards, it will find its hands tied by a court-made law. This argument is directed mainly to the refusal of the highest court to disturb a decision of the U. S. circuit court of appeals for the District of Columbia, setting aside an FPC rate order based on "fair field" prices, rather than a cost rate base for Panhandle Eastern Pipe Line Company. (The case was known as City of Detroit *v.* Federal Power Commission, 11 PUR3d 113.) More recently, however, the U. S. Supreme Court has left standing an order against a boost in natural gas rates proposed by the Cities Service Gas Producing Company.

This natural gas rate case is a result of the high court's so-called Phillips Petroleum decision, which brought independent gas producers under FPC regulation. Because of this decision, the FPC asked all independent producers to file a schedule of their rates as of June 7, 1954. Cities Service Gas Producing had no rate on file with the FPC on June 7th. A week later, the company worked out a rate schedule which, among other things, declared that the rates effective for the preceding year were higher than the rates that had actually been charged. The rates applied to gas sold to its parent concern, Cities Service Gas Company, also of Oklahoma City. Cities Service Gas is, in turn, a subsidiary of Cities Service Company.

The FPC refused to accept this rate filing and ordered the rates rolled back to the level actually in effect prior to June 7th. A U. S. court of appeals upheld the commission and the Supreme Court declined to review the case. The gas company argued that the FPC action constituted retroactive rate fixing, which is barred by court decisions. The government, however, contended the FPC's action was necessary to uphold the spirit of the Phillips decision.

COMPETITION from other fuels and federal government regulation are the main gas industry problems, according to James F. Oates, Jr., chairman of the board of Peoples Gas Light & Coke Company. Oates addressed the annual meeting of the Independent Petroleum Association of America in Dallas on October 30th. He said both understanding and statesmanship are needed to solve the dual problem: "The public will best be served by keeping the production phase of the natural gas business free of all price regulation, state and federal, and by relying, instead, upon the free interplay of market forces to do the pricing job in a way most likely to assure the continuing availability of adequate supplies."

The FPC has no authority to decide that competition exists to such a degree as to make regulation completely unnecessary, according to Oates; "only Congress can take that step." Oates suggested that FPC ought to concentrate mainly on rate proceedings involving producers where competitive conditions are absent. He made several recommendations concerning items for consideration in amending the Natural Gas Act. These included the acceptance as "just and reasonable" of uncontested contract prices. In other cases he urged use of a commodity field price without recourse to traditional public utility rate-fixing methods. He proposed outlawing of escape clauses which exempt producers from regulation and the "barest minimum" of paper work consistent with the given regulatory situation.

No Change in Power Policy

SHORTLY after the elections, rumors and press stories began leaking out of Washington that the Eisenhower administration might be considering changes in power policy because of certain Republican political defeats in the West and Northwest. An Associated Press dispatch, dated November 10th, quoted an unnamed official as saying that a review would be "set in motion at the vice presidential and Cabinet level"—aimed at determining whether policy changes are in order. Also under consideration, according to the same source, was the question whether administrative changes are needed, as well as what he called "a better getting across to the people of the story of what is being done."

In many of the states of the Midwest and Far West the administration's program of developing power in partnership with local governmental and private interests was at issue in political battles.

Actually, it appears that the unnamed source of this press rumor might have been engaging in more expansive ideas than the facts warrant. Certainly there had been no Cabinet meetings on this or any other subject for days before and after the election. Two Cabinet members were on the hospital list, a third still recovering, and several others, including Vice President Nixon, trying to get in a few days' rest from the rigors of the campaign.

SECRETARY of Interior Seaton, who would be most involved in any reappraisal of administration power policy, is known to be dissatisfied mainly with the degree of public lack of understanding about the administration's "partnership policy," and what it means to the western public. But this situation would seem to call for a review of information, publicity, and other federal government activities designed to get across the administration's story about the "partnership policy," in a more effective way. It would not necessarily require any basic policy change. President Eisenhower, himself, at his press conference on November 14th, indicated that the administration will press on with its avowed programs as is, generally.

The Interior Department does intend to put up the wholesale power rates of the Southwestern Power Administration to a more compensatory level. But this is no new decision. Indeed, it goes all the way back to the last Congress. At that time the government power group in the 84th Congress, led by Senator Kerr (Democrat, Oklahoma), put a bill through both chambers to freeze SPA rates until next year when the new Congress meets. But President Eisenhower vetoed it on grounds that it would serve no purpose except unnecessarily to tie Interior's hands in the proper management of SPA affairs. Now, it looks as if Interior may raise the SPA rates and present the new Congress with an accomplished fact.

SUCH action, of course, could be the basis for the administration's first controversy over power policy in the new Congress. Interior Secretary Seaton already has requested FPC "review" of the controversial 30-year "bargain" contract rate given to the Reynolds Metals Company by SPA in April, 1952, some months before the Truman administration went out of office. Because the contract involves a utility company, Seaton has also asked FPC to review the SPA contract as it affects Arkansas Power & Light Company. Explaining his request on the Reynolds contract, Seaton said: "Revision of the aluminum rate is necessary if we are to provide power for each class of service at the same basic rate for all customers."

Telephone and Telegraph

Bell Plans Expansion

FREDERICK R. KAPPEL, president of the American Telephone and Telegraph Company, said last month that the Bell system plans to spend a record $2.5 billion next year in a construction program. He commented that the outlay "is the largest ever undertaken by any business."

Kappel, in an address before the Economic Club of Chicago, said the outlay would go for telephones, cables, dial systems, and other equipment the Bell system expects to install in 1957.

Going well beyond next year, Kappel gave a glimpse of what Americans can expect in the future in the way of telephone services. "As nearly as possible," he stated, "we want to build a communication system that will do anything people ask of it. This means a system that will carry every conceivable kind of information over any distance, long or short—words, music, pictures, raw data, or mathematical calculations—your business reports and your best girl's smile."

Kappel said these things could not be provided by research alone but would require money. He added: "To be able to make the best progress, and apply our new tools to the greatest advantage of everybody, the telephone system must be in good shape financially."

KAPPEL forecast a substantial new money raising operation by the Bell system next year. "One way or another, next year we're going to be raising a lot more money," he stated. "In fact, as we figure it, the Bell system will continue to be needing new capital from investors at an average rate of more than $125,000,000 a month," he added. This year AT&T, the Bell system parent, alone sold $570,000,000 of stock and $250,000,000 of bonds.

Among developments now being worked on are telephones especially designed for use "in the bedroom, out in the patio, or wherever you are." With equipment available right now, the speaker said, Bell system is trying out a home communication system that will handle calls in the usual way, enable a person to talk from any phone in the house to any other, and also permit him to answer the doorbell, when it rings, by talking from any telephone to a loud-speaker by the door.

In another look far ahead, Kappel envisaged development of a new mass message transmission method called a "wave guide." This would be a hollow copper tube, a pair of which, it is expected, would enable the sending of as many as 400,000 telephone conversations at the same time. At present 5,400 messages is the maximum.

The "wave guide" also would permit as many as 400 television pictures simultaneously compared with the present limit of 12 for each coaxial cable. Bell system also is working on a new electronic switching device which ultimately will replace the present metal switches in dial telephone offices. The new switches will be a network of little gas tubes controlled by transistors and several other kinds of electronic equipment. The new switches will function much more swiftly than the present ones and also will enable a wider range of telephone service.

The first trial of the new electronic switching is slated to start in 1959 in Morris, Illinois, about 60 miles from Chicago. Kappel was optimistic about the future of the newly announced experimental picturephone. "I believe person-to-person TV will come," he remarked. One of the many things needed to bring it about, he explained, is an abundance of low-cost mass message transmission pathways.

The Hush-A-Phone Decision

THE telephone companies are going to have to take a fresh look at their long-standing policy against so-called "foreign attachments" in the light of the recent decision of the United States court of appeals for the District of Columbia circuit in the Hush-A-Phone Case.

The Hush-A-Phone Corporation had complained against certain telephone company tariffs, which reserved the right to refuse service to a telephone subscriber who insisted on using its product—a device which clips onto a telephone transmitter. It is supposed to assist in quieting telephone conversations and making it possible to talk more confidentially, despite the presence of others in the same room or vicinity. The Bell system, joined by the United States Independent Telephone Association, contended that the device was a "foreign attachment" which violated the telephone's traditional rules against cluttering up telephone instruments with such gadgets, and that its main effect was simply to make telephone conversations less clear and distinct, thereby impairing the service.

The Hush-A-Phone device itself may not create much of a problem for the telephone industry. But there may be some side effects from industry's point of view: First, the door may now be opened to any number of other contrivances, some of which may be injurious to telephone service and create a serious burden on the industry's obligation to furnish that service unimpaired. Again, there was some comment in Circuit Court Judge Bazelon's opinion to the effect that the telephone industry itself might not have any right—under antitrust laws—to avert such injurious effects by developing substitute appliances which it approves and which can be made available by the telephone companies directly to the subscriber.

THIS last suggestion could open up a problem for the telephone industry in the future if it gains ground and high court approval in view of various business office equipment and radio and electronic telephone appliances now making their appearance. The telephone companies may want to merchandise these devices directly instead of permitting them to be sold by nonutility manufacturers and dealers, and used independently in connection with or as a by-product of regular telephone service.

NARUC Toll Accounting

THE Wisconsin Telephone Company has made some interesting references

to the effect of the National Association of Railroad and Utilities Commissioners' accounting recommendations on separation of interstate-intrastate telephone plant in the latest application of the company for a statewide rate increase. The company is seeking an unspecified increase to offset the result of recent additional expenditures of $2,750,000 a year for pay boosts and other expenses incidental to rapid new plant expansion.

The company's petition noted that since its rates were last under investigation by the public service commission, there has been a change in method of separating the company's property and expenses between that devoted to operation in Wisconsin and that devoted to interstate operation.

"This change brought about by the National Association of Railroad and Utilities Commissioners was effective July 1, 1956," the company said. "The effect of the change on the operation of the company is to shift some property and expense from the intrastate toll operation to the interstate."

This change was provoked because of instances in which a telephone subscriber could make a toll call to another state cheaper than he could make a call of the same distance within the state. The company said it has made necessary studies to determine the effect of the separations method and is prepared to make such adjustments in its intrastate toll rates as the public service commission determines reasonable.

The Wisconsin Telephone Company in three separate orders issued by the state commission based on 1952 rate increase requests by the company was allowed total increases of $6,135,000. The company has not petitioned for any rate increases since 1952. The company in its petition did not request a specific amount, but asked the comission to authorize rates which would provide it with a "reasonable return" on investment. In recent cases, mostly involving much smaller telephone companies, the commission has been determining that a reasonable return is about 5½ per cent.

Ohio Utility Antistrike Law

THE Ohio Federation of Labor has protested Governor Frank Lausche's decision to call a special legislative session to consider laws barring strikes against utilities. Governor Lausche, who originally called for the special session before his recent election as U. S. Senator from Ohio, indicated that he thought that such a law should not only ban such utility strikes but require arbitration of grievances in utility disputes.

The governor's action has grown out of the stubborn strike of members of the Communications Workers of America against the Ohio Consolidated Telephone Company, which has been going on since last July and has resulted in the closing of the Portsmouth and neighboring exchanges because of repeated acts of violence.

The Ohio Federation of Labor criticized the governor's proposal as an "extravagant waste of state funds . . . in attempting to legislate laws based on recommendations which have already been declared invalid by the Supreme Court." Phil Hannah, federation secretary-treasurer, called the governor's action "fantastic," but "consistent with his policy of evasion and administrative irresponsibility." The union official said that any such legislation would infringe on the right of free collective bargaining.

Financial News and Comment

By OWEN ELY

Capitalization Ratios and the SEC Inquiry

THE current investigation of capital ratios by the Securities and Exchange Commission should focus attention on this major problem of utility finance. In general, the percentage of senior capital, and more especially the debt ratio, should reflect (conversely) the degree of normal and foreseeable risk involved in the enterprise.

It should take into account the potential danger of a shrinkage in earnings which might threaten the maintenance of dividend or even interest payments and thus, by hurting the company's credit, make it difficult to attract the new capital necessary to maintain a healthy, growing enterprise. And it should presumably make some allowance for special developments in the art, in these days of rapid scientific progress.

The railroads and transit companies are the classic examples of the dangers of high debt ratios at a time when an industry encounters outside competition, losing its monopolistic advantages. The development of the automobile—an improvement in the art of transportation—while gradual over a period of years, was ignored until it was too late. Despite the fact that the majority of the rails and the transit companies have now been recapitalized, it is still difficult for many of them to do equity financing on a favorable basis, and hence growth is largely financed from internal cash, with a relatively low dividend pay-out.

THE electric and gas utilities naturally wish to avoid such an outcome. While competitive factors are not serious at present, there is always the possibility that these will develop, particularly in the house-heating and air-conditioning fields. Regulation cannot protect the utilities entirely against this factor, just as it has failed to protect the rails and transits. In the industrial area there is already some three-cornered competition among gas, hydro, and steam-generated electricity with respect to aluminum refining. The movement of the textile industry from New England to the South is an example of what regional competition may do. In some areas the gas companies have suffered from competition with coal or oil.

Because of the difficulty of foreseeing

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the effects of new competitive factors, some margin of safety must be built into the capital structure, just as engineers in designing a bridge allow heavily for extra weight and wind strain. However, just how much allowance should be made for this factor in addition to the allowance for "normal" fluctuations in earnings, should be a matter of business judgment by the individual utility management, and not for any regulatory agency to determine.

THE SEC, in its administration of the Public Utility Holding Company Act, made the statement to a House subcommittee that "an adequate equity cushion to absorb the vagaries of business conditions is an important attribute of a good security." Thus far it has avoided setting up any rigid yardsticks or formulas for capital ratios but has maintained a flexible policy in passing on the security issues of registered holding companies and their subsidiaries. The early rule-of-thumb formula (50-25-25) was not intended to be definite or final—it merely reflected the commission's opinion that the equity ratio should not drop below 25 per cent without reducing dividend pay-out and using the increased retained earnings to restore the ratio.

In a later case, the SEC set 30 per cent as a necessary minimum for a particular holding company. On the other hand, a very low ratio was permitted in a few special instances where the risk factor seemed negligible. In the case of EEI and OVEC an equity ratio of only 5 per cent was approved by the SEC. Some gas pipeline companies have also been permitted by regulatory commissions to organize with low equity ratios because the business was to be conducted largely on a long-term contractual basis. Thus SEC policy in the past has been quite flexible.

It may be of interest to review briefly the postwar trends in capital structure for the various segments of the utility industry.

In 1955, according to the "Statistics of Natural Gas Companies for 1955," issued by the FPC, the consolidated capital structure of 111 gas companies was as follows:

Long-term Debt	60.4%
Preferred Stock	8.0
Common Stock Equity	31.6
	100.0%

As indicated in the gas charts, pages 915 and 917, ten years earlier the industry ratios were almost the reverse—about 40 per cent debt and 55 per cent equity ratio. Thus there has been a considerable decline in the average equity ratio during the decade, probably due to the financing of large new pipelines on a low equity basis. As the charts indicate, the industry has grown faster than the electric utility industry—though the comparison is inaccurate because of the heavy write-offs taken by many electric utility companies.

THE chart of the electric utilities is available only to the end of 1954. At that date the consolidated capital structure was as follows:

Long-term Debt	50.4%
Preferred Stock	12.4
Common Stock Equity	37.2
	100.0%

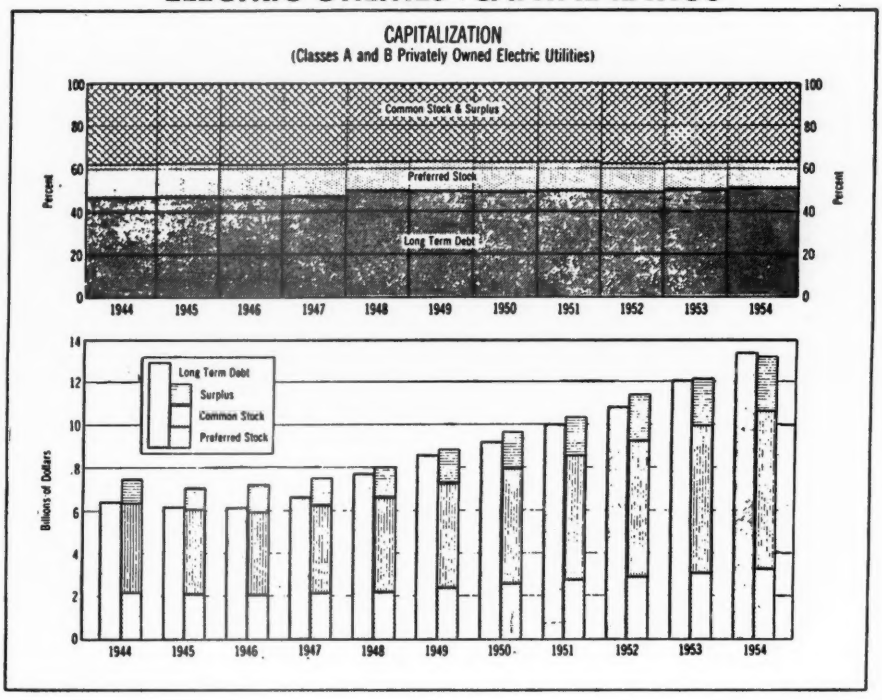
The capital structure of the electric utilities has remained remarkably constant during the past decade, with only a slight increase in the debt ratio. Actually, what has occurred has been a leveling process with many former subsidiaries of holding companies raising their ratios, while some of the strong, old-line utilities such as Consolidated Edison and Boston Edison allowed their above-average ratios to decline generally, by financing construction

largely through senior issues. Substantial write-offs by many holding company subsidiaries were offset by fresh injections of equity money by the holding companies.

E. A. YATES, chairman of the board of The Southern Company, has replied at some length to the SEC letter of September 5th asking for opinions regarding equity ratios, which was sent to a large number of utility executives and others. In general, Mr. Yates sees no need for higher ratios at this time and no need for setting up any uniform standards by the SEC.

He pointed out in his reply to the SEC that the experience of the utility industry has shown that a high equity ratio is not required to prevent bankruptcy but merely serves to provide a reserve borrowing cushion. He stated:

> From the point of view of insurance against bankruptcy from a failure to earn interest requirements, the history of the depression and readjustments of the 1930's indicates that utilities now able readily to raise additional capital by the sale of common stock . . . will for various reasons, including the effect of income taxes, be able to absorb reductions in gross revenue similar to those then suffered without stoppage of interest payments. This would appear to be so even though their equity ratios be lower than 25 per cent and their debt



ratios higher than 60 per cent. . . .

The history of the industry also shows that financing can be accomplished on a satisfactory basis even at a period when economic or similar forces have resulted in otherwise undesirably low equity ratios and high debt ratios.

The histories of Alabama Power Company and Georgia Power Company, in our group, provide illustrations of this. After uncertainties of possible governmental competition had been at least partially resolved in 1939 and 1940, each was able to finance on a reasonable basis even with equity ratios of less than 20 per cent. . . . It thus appears that the most that is being achieved by the building up of equity ratios even to 25 per cent and the holding of debt ratios down even to 60 per cent is the establishment of reserve borrowing power for utilization by the utility in unusual circumstances to expand service or to meet other urgent financial requirements.

MR. YATES strongly advised the SEC to continue the policy of studying equity ratios on an individual and flexible basis, rather than trying to set up any rigid rule or formula at this time. He pointed out that any such rule might well become embedded in regulatory practice and policy and become a "fixture," to the future detriment of the utilities. As an example, he described the present rigidity of the concept of aboriginal cost. This method of classification was originally said to be purely an accounting matter, and representations were made to the Supreme Court to the effect that if the excess cost of an item of purchased property over its aboriginal cost represented physical property, there would be no material difference in its regulatory treatment as compared with the treatment of aboriginal cost.

However, it soon became a fixed rule for electric utilities subject to federal regulations that amounts so classified had to be written off to surplus, or amortized (as an income deduction and not an expense) over a period usually set at fifteen years.

Mr. Yates pointed out that over the past two decades the utility companies have been able to offset substantial inflation in costs by technological progress and greater mechanization, but that this process could not be expected to continue indefinitely.

If inflation continues, the increasing costs of construction and operation must be reflected in higher rates unless some new methods of reducing costs can be developed. One such method would be to increase debt ratios and save taxes. (It may be commented that, even with present interest rates on mortgage bonds averaging perhaps 4.2 per cent, debt financing costs only about 2 per cent after taxes compared with perhaps 10 per cent for equity financing.)

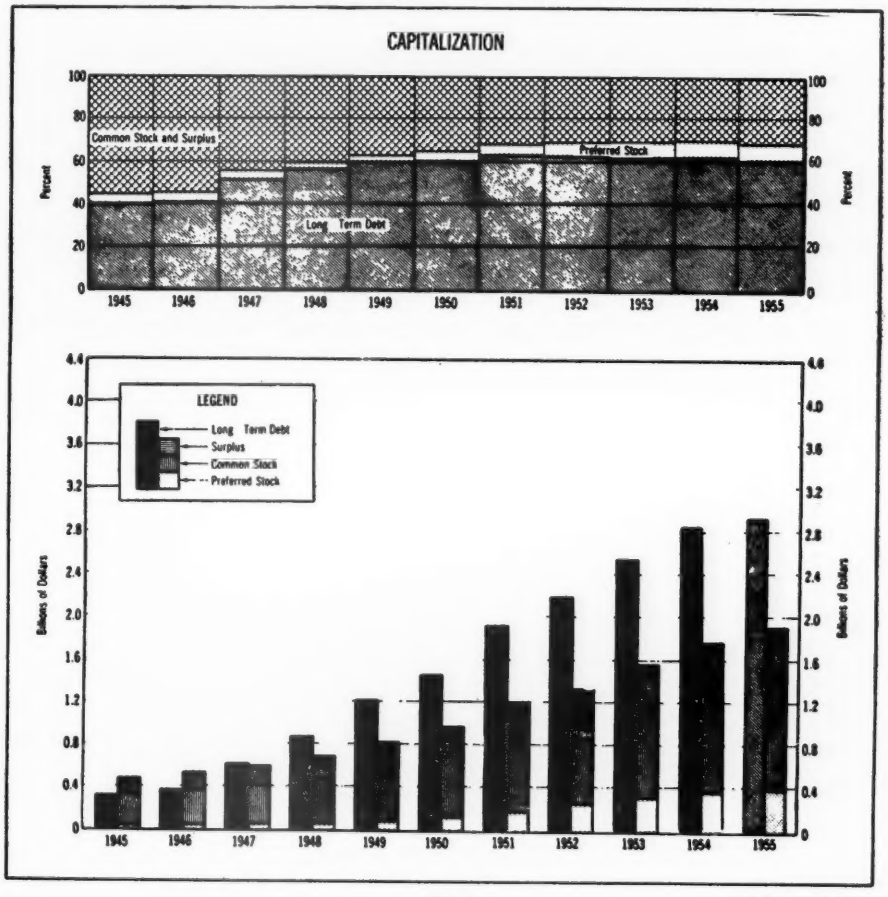
DURING the past decade many utility companies which formerly had below-average equity ratios have now raised them substantially, which should entitle them to considerable latitude in the future with respect to financial policy. He concluded that the form of each particular financing, and the resulting ratios, must be adapted to the general and particular economic conditions existing at the time of the financing; *i.e.*, to the availability and cost of debt money; the availability and cost of common stock money; whether earnings are rising or falling; the size and period to be covered by the current construction program, and its urgency; the competitive situation of the utility; and a host of other relevant factors.

"Since apparently there is no inherent conflict between the objectives of management and regulation, it seems clear that the freedom of both management and regulation to meet future problems as the future may require should not be impeded by any fixed policy in the essentially discretionary and judgment field of capitalization ratios."

THE telephone industry is dominated by American Telephone and Telegraph Company, which controls about 85 per cent of the telephones in this country. AT&T has set 67 per cent as the equity ratio it wishes to maintain, explaining the need for this relatively high ratio by the fact that the industry is more cyclical than the electric and gas utilities and has a greater wage burden (which is almost like a fixed charge on a short-term basis). On the other hand, General Telephone, the second largest system, seems currently satisfied with an equity ratio around 35 per cent. Some of the smaller independents for which figures are readily available average about 39 per cent.

Some of the smaller independents for

NATURAL GAS UTILITIES - CAPITAL RATIOS



which figures are readily available average about 39 per cent.

The transit companies have an average equity ratio of about 63 per cent, excluding the huge Greyhound Corporation with about 52 per cent. As referred to above, this reflects the heavy competition, the resulting narrow profit margins, and the greater risk factor of the transit enterprise.

The Case for Convertibles

PRESIDENT Walker L. Cisler of the Detroit Edison Company, in a recent talk before the New York Society of Security Analysts, discussed the company's policy of issuing convertible debentures in lieu of equity financing. During its history the company has issued some $184,000,000 of convertible debentures, most of them in recent years—$46,000,000 in 1948, $43,000,000 in 1954, and $59,000,000 in September, 1956. The 3s of 1948 (due in 1958), of which less than a million remain unconverted, are convertible into common stock at $20 per share and have sold as high as 184½. The 3½s of 1954 due in 1969 sold up to nearly 145 last year but are currently lower; they are convertible into stock at $25 a share and most of the issue is still outstanding.

This year the company offered stockholders of record August 17th the right to subscribe to $59,000,000 convertible debenture 3¾s due 1971, on the basis of $100 debentures for each 21 shares held. These debentures will only become convertible beginning October 1, 1958, at the rate of 3¼ shares of stock for each $100 debentures—or at a price of about $30.77 a share compared with the recent market price around 35⅜. Assuming that the price should remain unchanged on October 1, 1958, the bonds on a convertible basis would then be worth about $115 compared with the recent price of 108⅜.

MR. CISLER stated that the decision to issue convertibles represented a "reasonable compromise" considering such factors as cost, safety, leverage, dilution, and flexibility. These factors may be analyzed as follows:

Cost. Convertibles can usually be sold at a somewhat lower interest cost than straight debentures or even mortgage bonds. During the two- or three-year construction period needed to build a new plant, the company thus pays low-cost and tax-deductible interest. The debentures are not eligible for conversion until after a waiting period—two years in this case—so that dilution of earnings is delayed.

Safety. Detroit Edison has traditionally maintained a strong equity base and a conservative capital structure, with no

Date	*Amount (Millions)*		*Initial Conversion Rate*
March	$ 3.0	Laclede Gas 4.32% Pfd. Stock (par $25)	1½ Shs.
April	.6	Edison Sault Elec. 4¾ Pfd. (par $25)*	n.a.
May	1.2	Commonwealth Natural Gas 4½% Deb. 1971	30½(a)
June	.3	Tropical Gas $5.24 Pfd.	n.a.
July	.1	Colonial Utilities 6% Sub. Deb. 1966	18 Shs. per $100 Deb.
July	14.8	Indiana P. S. 4.40% Junior Pfd. (par $40)	1-for-1
Aug.	59.8	Detroit Edison 3¾% Deb. 1971	3¾ Shs. per $100 Deb.(b)
Sept.	20.0	Tennessee Gas Trans. 5% Pfd. (par $100)	3 Shs.
Oct.	18.0	Long Island Light. 4.40% Pfd. (par $100)	4⅓ Shs.
Oct.	10.0	Houston Natural Gas 5¼% Pfd. (par $100)	2.9 Shs.
Nov.	10.0	Arizona Pub. Serv. —% Pfd. (par $50)	**

*—Private placement. **—Not yet announced. (a)—After June 1, 1957. (b)—After October 1, 1958. n.a.—Not available.

preferred stock. For many years a 50-50 ratio was considered about right, but in recent years, influenced by the high federal income tax rate and stable revenues, the management decided that an equity ratio of 40-45 per cent would be satisfactory. At the present time the ratio stands at 44 per cent. Conversion of debentures in future will tend to increase the ratio.

Leverage. During the period in which convertibles are not eligible for conversion—and usually for a somewhat longer time—common stock leverage is temporarily increased.

Dilution. When conversion does occur, it is usually gradual and common stock dilution is also gradual so that earnings per share do not decline so sharply.

FLEXIBILITY. Future financing is left more flexible since the company is not top-heavy with mortgage debt. During the next three years, Mr. Cisler stated, projections indicate that all external financing, which should average about $60,000,000 new money each year, can be accomplished through mortgage debt. He also estimated that during the next three years the equity base can be maintained within the 40-45 per cent range, since retained earnings and debenture conversions will gradually expand the equity base. Thus the company will probably not require equity financing during the next three years.

A NUMBER of utilities in recent months have issued convertible securities as shown in the table on page 918.

Consolidated Edison is expected to announce shortly the issuance of about $55,000,000 convertible debentures, to be offered on a subscription basis, and convertible at the market price around the date of issuance; the issue will not be underwritten, it is understood, but dealer compensation will be allowed.

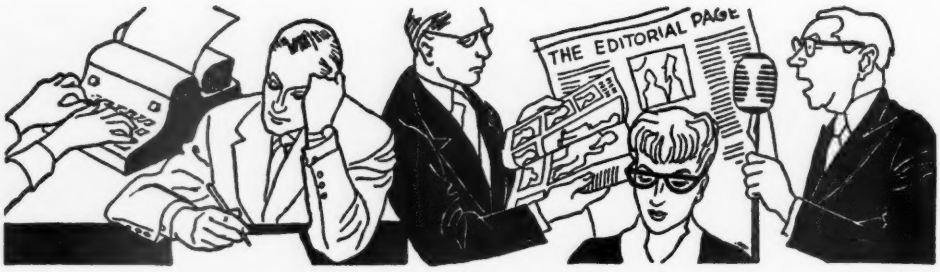
DATA ON ELECTRIC UTILITY STOCKS

Rev. (Mill.)			*11/14/56 Price About*	*Dividend Rate*	*Approx. Yield*	*Recent Share Earnings**	*% Increase*	*Aver. Incr. In Sh. Earns. 1951-55*	*Price-Earns. Ratio*	*Div. Payout*	*Approx. Common Stock Equity*
$258	S	American G. & E.	36	$1.44	4.0%	$2.01Se*	4%	9%	17.9%	72%	34%
39	O	Arizona Pub. Serv.	22	1.12	5.1	1.64Se	NC	9	13.4	68	31
10	O	Arkansas Mo. Power	24	1.24c	5.2	1.95Se	18	8	12.3	64	30
27	S	Atlantic City Elec.	28	1.20	4.3	1.57Se	4	10	17.8	76	27
118	S	Baltimore G. & E.	33	1.60	4.8	2.26Se	10	5	14.6	71	41
6	O	Bangor Hydro-Elec.	31	1.90	6.1	2.59Se	23	3	12.0	73	31
5	O	Black Hills P. & L.	24	1.40	5.8	2.15Ap	5	3	11.2	65	27
91	S	Boston Edison	51	2.80	5.5	3.40Ap	NC	2	15.0	83	53
19	A	Calif. Elec. Power	14	.76	5.4	.94Se	8	17	14.9	81	35
17	O	Calif. Oreg. Power	31	1.60	5.2	2.08N	17	4	14.9	77	37
7	O	Calif. Pac. Util.	28	1.50	5.4	2.25Se	3	5	12.4	67	29
58	S	Carolina P. & L.	23	1.10	4.8	1.74Se	9	4	13.2	63	37
26	S	Cent. Hudson G. & E.	16	.80	5.0	1.11Se	7	10	14.4	72	33
19	O	Cent. Ill. E. & G.	30	1.60	5.3	2.35Se	16	8	12.8	68	30
33	S	Cent. Ill. Light	54	2.60	4.8	4.10Se	29	8	13.2	63	41
50	S	Cent. Ill. P. S.	30	1.60	5.3	2.44Se	7	17	12.3	66	35
11	O	Cent. Louisiana Elec.	32	1.60	5.0	2.10Se	21	6	15.2	76	30
33	O	Cent. Maine Power	23	1.40	6.1	1.65Se	D26	7	13.9	85	33
114	S	Cent. & South West	36	1.60	4.4	2.29Se	14	13	15.7	70	36
11	O	Cent. Vermont P. S.	16	1.00	6.3	1.22Se	D7	2	13.2	83	28
108	S	Cincinnati G. & E.	26	1.20f	4.6	2.16Je	19	8	12.0	56	39
6	O	Citizens Util. "B"	14	.90a	6.4a	1.08Je	—	11	13.0	83	40
104	S	Cleve. Elec. Illum.	39	1.60	4.1	2.71Je	29	9	14.4	59	47
4	O	Colo. Cent. Power	26	1.20	4.6	1.74Se	11	5	14.9	69	24
45	S	Columbus & S. O. E.	30	1.60	5.3	2.16Se	D6	5	13.9	74	37
336	S	Commonwealth Edison ...	40	2.00	5.0	2.72Se	D4	9	14.7	71	47

Rev. (Mill.)		(Continued)	11/14/56 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings*	% Increase	Aver. Incr. In Sh. Earns. 1951-55	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
10	A	Community Pub. Service ..	25	1.20	4.8	1.80Se	1	18	13.9	67	51
2	O	Concord Elec.	44	2.40	5.5	2.71De	3	2	16.2	89	61
65	O	Connecticut L. & P.	20	1.00	5.0	1.30Se	20	4	15.4	77	33
21	O	Connecticut Power	41	2.25	5.5	2.65Je	2	5	15.5	85	42
494	S	Consol. Edison	45	2.40	5.3	3.14Se	2	10	14.3	76	41
189	S	Consumers Power	49	2.20e	4.5	3.31Se	6	5	14.8	66	41
71	S	Dayton P. & L.	48	2.40	5.0	3.46Ma	15	4	13.9	69	38
34	S	Delaware P. & L.	41	1.60	3.9	2.35Se	5	10	18.2	68	32
220	S	Detroit Edison	35	2.00	5.7	2.28Se	D4	11	15.3	88	42
120	A	Duke Power	28	1.20	4.3	1.84Se	8	22	15.2	65	54
89	S	Duquesne Light	37	2.00	5.4	2.45Se	9	4	15.1	82	36
27	O	Eastern Util. Assoc.	35	2.20	6.3	2.59Se	5	0	13.5	85	36
2	O	Edison Sault Elec.	16	.80	5.0	1.13Se	4	24	14.2	71	40
10	O	El Paso Elec.	44	2.00	4.5	2.61Se	13	8	16.9	77	39
11	S	Empire Dist. Elec.	32	1.80	5.6	2.27Se	11	1	14.1	79	30
4	O	Fitchburg G. & E.	53	3.00	5.7	3.52De	8	3	15.1	85	55
43	S	Florida Power Corp.	53	1.80	3.4	2.80Se	30	19	18.9	64	34
93	S	Florida P. & L.	45	1.28	2.8	2.40Se	25	16	18.8	53	40
163	S	General Pub. Util.	37	1.90	5.1	2.87Je	12	12	12.9	66	39
6	O	Green Mt. Power	16	1.00	6.3	1.23Je	8	7	13.0	81	37
51	S	Gulf States Util.	37	1.60	4.3	2.20Se	7	17	16.8	73	31
21	A	Hartford E. L.	60	2.88	4.8	4.46Se	14	12	13.5	65	47
5	O	Haverhill Elec.	38	2.35	6.2	2.62De	34	—	14.5	82	100
18	O	Hawaiian Elec.	43	2.20g	5.1	3.65Se	24	—	11.8	59	37
66	S	Houston L. & P.	56	1.40	2.5	2.86Se	21	20	19.6	49	42
8	O	Housatonic P. S.	23	1.40	6.1	1.41De	19	0	16.3	99	54
25	S	Idaho Power	31	1.20	3.9	2.14Se	18	7	14.4	56	35
78	S	Illinois Power	56	2.60	4.7	3.93Se	16	6	14.3	66	35
40	S	Indianapolis P. & L.	30	1.50	5.0	2.07Se	8	2	14.5	72	38
19	S	Interstate Power	14	.80	5.7	1.05Se	4	6	13.3	76	31
30	O	Iowa Elec. L. & P.	30	1.50	5.0	2.28Se	17	10	13.2	66	31
31	S	Iowa-Ill. G. & E.	31	1.80	5.5	2.45Se	6	2	12.7	73	40
35	S	Iowa Power & Lt.	26	1.40	5.4	1.97Se	—	1	13.2	71	35
30	O	Iowa Pub. Serv.	16	.80	5.0	1.12Se	22	3	14.3	71	33
13	O	Iowa Southern Util.	22	1.28	5.8	1.81Se	11	7	12.2	71	36
56	S	Kansas City P. & L.	39	2.00	5.1	2.78Se	21	8	14.0	72	35
27	S	Kansas G. & E.	26	1.20	4.6	2.14Se	12	9	12.2	56	26
40	S	Kansas Pr. & Lt.	23	1.20	5.2	1.96Se	24	9	11.7	61	27
37	O	Kentucky Util.	25	1.28	5.1	2.05Se	D2	9	12.2	62	35
7	O	Lake Superior D. P.	26	1.20	4.6	1.69Se	13	4	15.4	71	38
6	O	Lawrence Electric	29	1.75	6.0	1.87De	34	D	15.5	94	62
17	S	Long Island Lighting	22	1.10	5.0	1.55Se	20	4	14.8	71	34
52	S	Louisville G. & E.	60	2.20	3.7	3.90Se	1	4	15.4	56	35
7	O	Lowell Electric Lt.	54	3.00	5.6	3.64De	19	D	14.8	82	59
9	O	Lynn G. & E.	32	1.60	5.0	2.03De	1	8	15.8	79	76
8	O	Madison G. & E.	41	1.80	4.4	4.04Jy	NC	10	10.1	45	47
4	A	Maine Pub. Service	16	1.08	6.8	1.02Se	D25	3	15.7	106	31
5	O	Michigan G. & E.	48	1.50b	6.2g	4.03Je	18	13	11.9	37	35
144	S	Middle South Util.	29	1.50	5.2	2.12Se	13	6	13.7	71	35
26	S	Minnesota P. & L.	26	1.40	5.4	2.07Se	7	8	12.6	68	34
2	O	Miss. Valley P. S.	30	1.40J	4.7	2.24Se	D10	3	13.4	63	31
10	A	Missouri Pub. Ser.	15	.72h	4.8	1.04Se	25	19	14.4	69	29
5	O	Missouri Util.	28	1.36	4.9	1.88Se	8	3	14.9	72	36
37	S	Montana Power	42	1.80	4.3	3.12Se	7	5	13.5	58	36
130	S	New England Elec.	17	1.00	5.9	1.24Se	2	0	13.7	81	33
40	O	New England G. & E.	18	1.00	5.6	1.54Se	19	5	11.7	65	40
44	O	New Orleans P. S.	45	2.25	5.0	2.60Se	—	0	17.3	87	40
2	O	Newport Electric	20	1.00	5.0	1.40Ja	16	0	14.3	71	34
77	S	N. Y. State E. & G.	37	2.00	5.4	2.83Au	D2	6	13.1	71	38
210	S	Niagara Mohawk Pr.	31	1.80	5.8	2.22Se	—	6	14.0	81	34
75	O	Northern Ind. P. S.	37	1.80	4.9	2.86Se	4	6	12.9	63	33
118	S	Nor. States Power	17	.90	5.3	1.20Se	8	9	14.2	75	33
9	O	Northwestern P. S.	17	1.00	5.9	1.35Se	D3	4	12.6	74	25
123	S	Ohio Edison	52	2.64	5.1	3.72Se	10	9	14.0	71	38
40	S	Oklahoma G. & E.	37	1.70	4.6	2.43Se	9	10	15.2	70	30

Rev. (Mill.)		(Continued)	11/14/56 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings*	% Increase	Aver. Incr. In Sh. Earns. 1951-55	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
15	O	Otter Tail Power	27	1.60	5.9	2.26Se	11	9	11.9	71	34
443	S	Pacific G. & E.	50	2.40	4.8	3.51Je	10	16	14.2	68	33
44	O	Pacific P. & L.	30	1.48	4.9	1.81Au	9	4	16.6	82	28
123	S	Penn Power & Light	46	2.40	5.2	3.44Se	12	9	13.4	70	29
210	S	Phila. Electric	37	1.80	4.9	2.53Se	9	5	14.6	71	40
32	O	Portland Gen. Elec.	22	1.20	5.5	1.67Jy	3	6	13.2	72	39
58	S	Potomac Elec. Pr.	22	1.10	5.0	1.50Se	16	7	14.7	73	40
77	S	Pub. Serv. of Colo.	41	1.80i	4.4	2.83Se	11	7	17.2	64	38
273	S	Pub. Serv. E. & G.	32	1.80	5.6	2.37Se	8	2	13.5	76	37
67	S	Pub. Serv. of Indiana	38	2.00	5.3	2.43Se	—	3	15.6	82	33
26	O	Pub. Serv. of N. H.	17	1.00	5.9	1.22Se	D1	13	14.0	82	36
11	O	Pub. Serv. of N. M.	14	.68	4.9	1.12Se	18	4	12.5	61	33
23	S	Puget Sound P. & L.	26	1.28	4.9	1.59Je	9	10	16.4	80	56
52	S	Rochester G. & E.	28	1.60	5.7	2.22Se	—	8	12.6	72	36
17	O	Rockland L. & P.	18	.70	3.9	.97De	20	11	18.6	72	29
8	S	St. Joseph L. & P.	24	1.40	5.8	1.79Se	7	7	13.4	78	40
45	S	San Diego G. & E.	23	.96	4.2	1.52Se	40	2	15.1	63	40
8	O	Savannah E. P.	40	1.68	4.2	2.76Au	30	5	14.5	61	28
8	O	Sierra Pacific Pr.	21	1.20	5.7	1.48Se	—	14	14.2	81	28
154	S	So. Calif. Edison	47	2.40	5.1	3.20Se	1	3	14.7	75	36
38	S	So. Carolina E. & G.	19	1.00	5.3	1.42Se	6	40	13.4	70	29
6	O	Southern Colo. Pr.	14	.70	5.0	1.24Au	D1	11	11.3	56	37
210	S	Southern Company	21	1.00	4.8	1.48Au	7	7	14.2	67	32
16	S	So. Indiana G. & E.	31	1.60	5.2	1.92Se	D17	5	16.1	83	33
5	O	So. Nevada Power	18	1.00	5.6	1.39Se	D5	41	12.9	72	34
1	O	Southern Utah Pr.	17	1.00	5.9	1.13Je	20	D	15.0	88	38
3	O	Southwestern E. S.	20	1.08	5.4	1.66My	—	4	12.0	65	29
33	S	Southwestern P. S.	27	1.40	5.2	1.59Jy	2	4	17.0	88	30
21	A	Tampa Elec.	31	1.20	3.9	1.61Se	12	10	19.3	75	42
127	S	Texas Utilities	37	1.28	3.5	2.25Se	12	13	16.4	57	38
35	S	Toledo Edison	13½	.70	5.2	1.02Se	D4	5	13.2	69	30
12	O	Tucson G. E. L. & P.	31	1.20	3.9	2.01Se	21	10	15.4	60	33
119	S	Union Elec. of Mo.	27	1.40	5.2	1.75Je	4	13	15.4	80	37
30	O	United Illuminating	27	1.30	4.8	1.61De	3	9	16.8	81	51
5	O	Upper Peninsula Pr.	30	1.60	5.3	2.02Se	D8	14	14.9	79	36
38	S	Utah Power & Lt.	25	1.10	4.4	1.70Se	12	8	14.7	65	42
106	S	Virginia E. & P.	45	1.80	4.0	2.72Se	8	13	16.5	66	34
24	S	Wash. Water Power	37	1.88	5.1	2.23Se	12	14	16.6	84	44
127	S	West Penn Elec.	26	1.40	5.4	2.11Se	5	10	12.3	66	29
64	O	West Penn Power	48	2.40	5.0	3.24Se	1	13	14.8	74	33
11	O	Western Lt. & Tel.	33	2.00	6.1	3.03Se	13	7	10.9	66	31
24	O	Western Mass. Cos.	42	2.20	5.2	3.08Se	1	12	13.6	71	52
95	S	Wisc. El. Pr. (Cons.)	33	1.60	4.8	2.31Se	D5	16	14.3	69	39
37	O	Wisconsin P. & L.	25	1.28	5.1	1.80Se	5	4	13.9	71	35
34	S	Wisconsin P. S.	23	1.20	5.2	1.76My	NC	7	13.1	68	35
		Averages			5.1%			8%	14.4	72%	
		Foreign Companies									
188	S	Amer. & Foreign Pr.	14	$ .80	5.7%	$2.10Je	8%	2%	6.7%	38%	46%
139	A	Brazilian Trac.	8	.50	6.3	1.18De	D7	D	6.8	42	72
63	A	British Columbia Pr.	44	1.20	2.7	2.05De	37	27	21.5	59	27
16	A	Gatineau Power	29	1.40	4.8	2.06De	5	15	14.1	68	30
11	A	Quebec Power	27	1.20	4.4	1.73De	11	12	15.6	69	48
45	A	Shawinigan Wtr. & Pr.	89	1.80	2.0	3.48De	30	22	25.6	52	35

A—American Stock Exchange. B—Boston Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. *Based on average number of shares. a—Estimated annual rate. The "A" stock receives stock dividends. b—Also 3 per cent stock dividend December 30, 1955, which is included in the yield. c—Also 2 per cent stock dividend January 10, 1956. e—Also 5 per cent stock dividend June 15, 1956. f—Also 5 per cent stock dividend August 15, 1956. g—Also 10 per cent stock dividend April 30, 1956. h—Also stock dividend of one share for each 200 held September 12, 1956. i—Also 10 per cent stock dividend November 16, 1956. J—Also 10 per cent stock dividend August 31, 1956.



What Others Think

Too Much U. S. Investment in Canada?

THE traditional friendship between the United States and Canada is one of the blessings for which Americans are truly thankful. Every American schoolboy knows of the thousands of miles of unfortified frontier between the two countries—an example of how neighboring peoples of different nationality can dwell side by side in mutual trust and confidence. The citizens of the U. S. and Canada move freely back and forth across the border with a minimum of red tape, and ties of trade and investment have been growing steadily closer.

Yet, inevitably, where two sovereign nations are linked so intimately, causes of disagreement, misunderstanding, and friction occasionally arise. The First National City Bank of New York, in its monthly letter, August issue, expressed concern over the appearance of a new bone of contention; *i.e.,* the extent to which foreign capital, particularly American, has penetrated Canadian enterprises, such as the oil and natural gas industry. The New York correspondent of the London *Statist,* the letter article said, discussed the issue informatively in the May 19th issue under the heading of "Too Much U. S. Investment in Canada?"

According to the banking letter, anxiety of some Canadians over the investment issue has cropped out recently in public discussions, sometimes in such emotional terms as to suggest that American capital is no longer welcome in Canada. In the interest of good U. S.-Canadian relations, the letter writer states, it behooves Americans to inquire to what extent criticism of American investment policies exists among the Canadian people, what it is based on, and what Americans can do to meet it.

Such an inquiry is timely, in the view of the writer, for another reason. It reveals an impressive picture of the growth of the Canadian economy and the energy Canadians have applied, often in conjunction with foreign capital, to make that growth possible.

THAT some Canadians have been unhappy about the rôle of U. S. investment in Canada still comes as a surprise to most Americans, if not to those connected with the natural gas industry, and aware of the furor over the financial stake Americans had in the outcome of the debates in Ottawa last summer involving the future of the trans-Canada natural gas pipeline, now being constructed. Such investment has been going on for a long time, and has seemed natural and in accord with past patterns of international

capital movements, the article explains. The United States, with its comparatively developed economy, has had a surplus of capital to invest abroad. Canada, as a comparatively young and vigorously growing country, has been dependent in a measure upon capital imports, just as was the United States in the earlier days of its history.

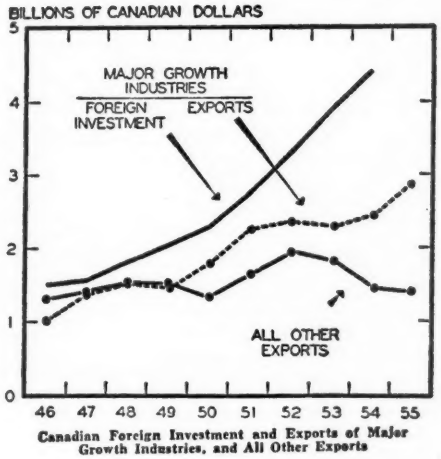
By way of historical background, the First National City Bank article explains that during the opening years of this century, when Canada experienced its first most pronounced expansion, British capital predominated in these imports. Since the middle twenties, however, American capital has taken an increasing lead. The article writer believes that proximity, confidence in fair treatment and in the future of the country, and absence of restrictions on free transfer of earnings and capital across the boundary, have accorded Canada a top rating in the minds of American investors. With the coming of Empire Preference in the early 1930's, additional incentive appeared for establishment of Canadian subsidiaries of American corporations to export to the preference area from Canada rather than from the United States.

SINCE World War II additional factors have accelerated the flow of U. S. funds into Canada, the article continues. Depletion of some American natural resources, coupled with a growing realization of the vast Canadian resources, has encouraged a steady stream of American capital into development of iron ore, oil and natural gas, lumber, nonferrous metals, and other basic commodities. While some of the inflow has taken the form of portfolio investments of a speculative character, most of it has represented investment by major American interests in leases, plants, and facilities, and the like, based on long-range considerations of growth and convenience of sources of supply.

Since all this is a familiar story, the article asks, why the flare-up over these investments? It is further stated:

> The first answer is politics. With a national election in Canada presumably coming up some time in 1957, the question of American "domination" of Canadian industry and natural resources has become a political issue. Such phrases as "dollar diplomacy," "economic colonialism," "alien stranglehold," and the like, illustrate the color of some of the debate.
>
> Critics complain that American concerns have been draining off Canadian raw materials to feed U. S. industries instead of processing them in Canada. Canadians have been exhorted "to declare their economic independence of the United States," and foreigners warned that "we are not going to be hewers of wood, drawers of water, and diggers of holes for any other country, no matter how friendly that country may be."

A second influence was the recent



Canadian Foreign Investment and Exports of Major Growth Industries, and All Other Exports

controversy over the granting of a Canadian government loan to the Trans-Canada Pipe Lines Company, Ltd., to help build a natural gas pipeline from Alberta to eastern Canada. While no one questioned the need for the pipeline, the opposition objected to the use of federal funds in financing a company that is predominantly owned by U. S. interests. The project precipitated a bitter fight in Parliament, further dramatizing the issue of foreign control of Canadian resources, and irritating feelings all around.

A third reason, underlying the others, is found in the report published last spring by the Dominion Bureau of Statistics (DBS) on "Canada's International Investment Position 1926-1954."

THIS report showed that of $12 billion of foreign capital invested in Canada since 1900, nearly half came in the last decade; moreover, of the $5.4 billion inflow in the latter period some 85 per cent came from the United States. What startled Canadians, in the view of the article writer, was the extent to which foreign capital was found to have assumed a major rôle in the most dynamic parts of the economy—oil, mining, and manufacturing. As the Canadian *Financial Post* expressed its concern,

> Most people have known that American participation in Canadian industry has been soaring since the war, but few have realized the extent of foreign domination. . . .
>
> In 1926 Canada controlled 65 per cent of its manufacturing; in 1953 it was 53 per cent; today it may be no more than half. In 1926 Canada controlled 62 per cent to its mining; in 1953 it was 43 per cent; today it is probably lower still. Taking altogether petroleum (in all its phases), all mining and smelting, and all other manufacturing, Canada in 1953 was just keeping ahead of the United States in its ownership of those aspects of Canadian business.

Herewith is reproduced a table from the article, based on the DBS report, showing for selected Canadian industries, the distribution of control as between Canada and other countries.

CONTROL OF SELECTED CANADIAN INDUSTRIES IN 1953
(In Millions of Dollars)

	Total Invest.	*Amount Controlled In Can.*	*Amount Controlled In U. S.*	*Per Cent of Total Controlled Can.*	*Per Cent of Total Controlled U. S.*	*Per Cent of Total Controlled Other*
Manufacturing:						
Pulp & paper	$ 1,285	$ 582	$ 544	45	42	13
Textiles	611	513	53	84	9	7
Chemicals	572	159	309	28	54	18
Elec. apparatus	386	108	240	28	62	10
Trans. equip.	624	164		26		
Iron & steel	355	340		96		
Beverages	336	276	528	82	36	4
Agricul. machy.	164	109		66		
All others	3,796	2,039	1,504	54	39	7
Subtotal	8,129	4,290	3,178	53	39	8
Min. & smelt'g. incl. petroleum	2,524	1,089	1,390	43	55	2
Petroleum refining, merch., & trans.	1,135	257	845	23	74	3
Total	11,788	5,636	5,413	48	46	6

In considering these figures, the article first offers some additional perspective. According to the DBS report, it says over 80 per cent of Canada's large capital outlays in recent years has been financed from domestic sources. This included practically all of the new housing, most of the outlays in agriculture, transportation, roads, schools, and government works, and much of the expenditures in public utilities, merchandising, and some of the manufacturing industries, including steel and textiles.

ACTUALLY, according to the bank letter writer, who quotes Canadian Minister of Trade and Commerce C. D. Howe, Canadian savings available for investment have been much greater than even these figures would suggest. A good portion of these savings was invested abroad. From 1946 to 1949 and for some years before that, and again in 1952, Canada was a net exporter of capital, the article continues. So if one allows for Canadian investments abroad and the use of foreign resources as a percentage of net capital formation, it turns out that not more than 6 per cent of Canadian investment in the postwar period depended on foreign resources. This, the article found an impressive achievement.

The aspect he stressed, however, was that despite the near adequacy of Canadian savings over all, Canadians have preferred to invest some of their capital abroad and, in general, to channel their funds into fixed income securities rather than into the type of equity securities associated with the development of the great resource industries, in which American capital has taken so prominent a part.

Various reasons for this were outlined by Douglas Gibson, president of the Canadian Political Science Association, at the annual meeting in June:

> Most important is the nature of Canadian development, with its emphasis on the large-scale mineral and forest industries with their huge requirements for capital and the related need for some reasonable assurance as to markets. Developments of this kind require large amounts of risk capital and, with only a limited number of large Canadian-owned corporations in these areas of enterprise and comparatively few individuals of great wealth, it was almost inevitable that United States capital should play an important part.
>
> It may also be noted that Canadian institutional collectors of long-term savings have not traditionally invested much in equity capital, nor have they been encouraged to do so by our legal arrangements. The most important factor of all in the development of large-scale resource projects is the prospect that markets will be available for the ultimate production. Large American and American-controlled concerns with their connections and sometimes entrenched position in the United States markets have naturally been in a strong position from this point of view.

It is noteworthy that Canadian investors, despite unbounded confidence in the future of their country, have been net sellers of Canadian equities over the past few years, as pointed out by the article. This is in spite of the incentive to hold them, offered by the 20 per cent Canadian tax credit to Canadian nationals on dividends from Canadian corporations.

FROM the foregoing, two points stand out, according to the article: (1) While Canada has been generating most of the savings needed to finance her rapid development, there has been—for the reasons given—a shortage of venture capital which has had to be met from outside sources, in large part from the United

States. (2) As Mr. Gibson observed in his address, the flow of foreign and U. S. investment money to Canada has occurred almost entirely as a result of the free movement of funds and enterprise. "Americans and their companies," he pointed out, "made their investments under our laws, like anyone else."

Canada has benefited from this capital inflow, the writer suggests, both internally and externally. Internally, these investments, despite their concentration in the primary industries, have had a "multiplier" effect upon the economy at large, providing more jobs and encouraging the growth of new centers of population, with all the attendant demands for new homes and public and private services of innumerable variety. Quoting further from Mr. Gibson, the article states:

> Even the briefest study of the impact of the discovery of oil in Alberta demolishes the popular fallacy that the basic industries do little to encourage the growth of population and secondary industry.
>
> It is no coincidence that Alberta has become one of the fastest-growing provinces in population. It is true, of course, that the amount of employment directly related to the production of oil is small. But the huge investment involved, with all the related construction of refineries, pipelines, gathering systems, roads, and so on, the revenues and royalties arising from the oil, the demands for supplies, and the stimulus to the development of industries using oil or natural gas as materials or fuels, provide a tremendous and still widening impulse to economic growth, including that of "secondary" industry.

EXTERNALLY, the article adds, Canada has benefited from this capital inflow in that it has helped to finance the import requirements of the huge capital expansion program without drain upon the country's foreign exchange resources—even to the point of the Canadian dollar selling at a premium over the U. S. dollar. These investments are already bearing fruit in developing new exports or supplying goods that otherwise would have to be imported; and this is expected to increase as time goes on, adding to Canadian financial and economic stability in the future.

THE article contains a chart, reproduced on page 923, which indicates the relatively greater growth characteristics of exports in the major growth industries (wood and paper, iron ore, nonferrous metals, oil and natural gas, and chemicals) in which foreign capital has most actively participated, than in other lines.

The charge that these exports are depleting Canada's raw material resources without benefit to Canada would appear to be more emotional than factual, the article reports. In considering the broad benefits to Canada of developing these resources, it may be noted also that timber—to mention one basic commodity—is, under modern reforestation practices, no longer a wasting asset. Moreover, in the case of forest products and minerals as well, according to the author, Canadian processing of the raw material has in general been increasing, not decreasing. As for oil alone, the $1.1 billion of foreign capital invested, with $850,000,000 of Canadian capital, is saving the country close to $300,000,000 in foreign purchases annually.

The writer explains that in the case of iron ore, about which there has been some hue and cry, the Canadian iron and steel industry, practically since its inception, has drawn heavily upon U. S. resources. It is only very recently that Canadian ore exports to the United States have ex-

"WE HAD THE HOUSE REWIRED—IT WAS FALLING APART"

ceeded imports from this quarter. Traffic in raw materials between the two countries has been, and is, by no means a one-way street.

THE article maintains that the impression apparently held in some Canadian circles that Canadians are becoming increasingly "hewers of wood, drawers of water, and diggers of holes" for other people is not borne out by figures of Canadian exports to the United States. For example, in 1954, the latest date for which such figures are available, only 21 per cent of Canadian exports to the United States were classified as raw materials, as against 36 per cent in 1939 and 31 in 1929.

The author adds:

> But, when all is said and done, the basic question for Canadians themselves to decide boils down to whether it is in their best interests (a) to continue accepting foreign capital freely with a resulting stimulus to more rapid economic growth including development of raw material resources and exports, or (b) to discourage capital imports and

rely more on domestic savings and markets, at the cost of a slower rate of material progress. Realistic Canadians are well aware that they can hardly expect to have their cake and eat it too.

That there is little or no solid sentiment in Canada for the second alternative is indicated by statements of high government officials and business and financial leaders. The following excerpt from an address by Trade Minister Howe in Hamilton, Ontario, last April is typical of many that might be cited:

> I share the desire of Canadians to be free from dependence on large-scale imports of capital. As a member of the Canadian government, I do all I can to help maintain conditions favorable for Canadian investors, in the hope that one day we shall be able to look after all our capital requirements, if we choose to do so. The plain truth is, however, that Canadians have not generated enough savings to supply all the capital required for Canadian development in postwar years. They have preferred to invest their savings in traditional Canadian fashion. As I said at the outset, Canadians are inclined to be cautious.
>
> Let us face the facts. Had it not been for the enterprise and capital from the United States, which has been so freely at our disposal in postwar years, our development would have been slower, and some of the spectacular projects about which we are so proud and so rightly proud, since they are Canadian projects, would still be far in the future.

THE provincial governments of Canada, which have a direct responsibility for industrial development within their borders, have already given their answers to this question, the article goes on. All of them, without exception and regardless of politics, have made efforts to persuade American companies to establish within their borders. The Province of Ontario, for example, has for some time maintained an office in Chicago just for this purpose and is now reported to be opening another in New York city.

A QUESTION for Americans, and particularly for American companies having Canadian subsidiaries, is whether they are giving due weight to public relations in shaping their financial and operating policies. The article says that Canadians have generally welcomed the establishment of American-owned branch plants and subsidiaries, and most Americans are familiar enough with politics to take campaign oratory at a discount. Canadians, however, would like to see more opportunities for Canadian participation in the ownership of American projects operating within their borders, as well as more opportunities to advance to top positions of management.

Mr. Howe, in the speech above cited, stressed the ownership issue as follows:

> I am happy to note that Canadians are steadily increasing their equity holdings in many of the better-known projects in Canada which were originally developed by non-Canadians. It seems to me that we can reasonably ask that opportunities to do so will be opened to Canadians who wish to invest in equities at the going price. I suggest that those companies that operate their Canadian projects as wholly owned subsidiaries of a foreign corporation would do well to invite Canadian participation, through stock ownership in the Canadian subsidiary.
>
> I make this suggestion in the interests of the United States companies them-

selves. By giving Canadians an active interest in the success of their Canadian subsidiaries, United States companies will, in my view, contribute immeasurably to their own prospects in this country.

THE First National City bank writer admits this is a complex problem and, as experienced people will realize, there is no pat answer. There are American-controlled Canadian companies which are wholly American owned; others in which ownership is mixed in varying proportions. Some are managed largely by Americans; others largely by Canadians. These companies, however, are all operating under Canadian laws, and are working side by side with Canadian-controlled companies in developing Canadian resources for domestic consumption or export.

Under Canadian and U. S. tax laws and the Income Tax Convention between the two countries, the article states that American companies have not been encouraged to sell more than a small fraction of stock in their subsidiaries to outsiders. Under these tax provisions, it has been generally more attractive taxwise for a United States parent corporation to continue to hold at least 95 per cent of the voting stock of a Canadian subsidiary, it points out. Canadian proposals that the tax treaty be amended to correct this situation were reported in July to have resulted in an agreement between the two countries, subject to ratification by the Canadian Parliament and the U. S. Senate.

IN summing up his thought, the author writes that American companies operating Canadian enterprises have many factors to consider in determining their corporate setups, but one surely is concern for how Canadians feel. Such companies do well to bear in mind that they are in Canada as guests of the Canadian people, he adds. In striving to be good guests they not only improve their own public relations in Canada, but help set an example to the rest of the world of the mutual benefits that flow from the cultivation of a favorable investment climate.

Utilities as Customers for Weather Forecasts

ELECTRIC power and gas companies, gas transmission lines, telephone companies, and bus, streetcar, and rapid transit enterprises are among the many business users finding dollars-and-cents value in Weather Bureau forecasts and outlook information. Many companies do not rely exclusively on locally disseminated weather information obtainable over the radio and by phone, but subscribe directly to Weather Bureau daily and other publications, to public weather teletypewriter circuits of telephone companies and Western Union carrying up-to-the-minute Weather Bureau information, utilize the services of independent industrial weather firms, or, in some cases, employ staff meteorologists. Even so, the Weather Bureau thinks that the utility industry is not fully exploiting the weather information available.

The uses to which weather forecasts for the hours immediately ahead and over the longer run are put by public utilities are well known but perhaps deserve listing here. Bus lines utilize warnings of heavy snows, floods, cold waves, heavy rains, and fog in connection with the maintenance of schedules, rerouting in emergencies, mobilization of crews, preparation of sanding trucks, use of chains and antifreeze, and the like. Street railways,

which are handicapped by snow, bad sleet, or ice, when alerted in advance, send out crews to keep the trolley switches clear, an important precaution where the system is powered underground.

Rapid transit, especially elevated lines, is concerned with cold weather and heavy snow. Cold stiffens lubricants and increases friction. A sudden storm may greatly increase passenger traffic, necessitating changes in schedules.

ADVANCE weather information enables electric light and power companies to prepare for load changes. A cloud over Elizabeth, New Jersey, may mean that in twenty minutes millions of bulbs will be lighted in New York city. Electric utilities thus have practical use for Weather Bureau forecasts of ceiling, visibility, precipitation, light-intensity factor, temperature, and wind in planning production of electricity, since production must be precisely synchronized with demand. Electric utilities are also benefited by the use of other Weather Bureau information, including the longer-range outlook appraisals, hurricane warnings, river-level prognostications, etc. In common with telephone companies, power companies must alert extra crews when glaze on lines may cause failures. To coal users, possible delays in deliveries due to weather, including ice and fog, are of direct concern. So, too, is warning of possible thunderstorms, which may disable transformers.

The Potomac Electric Power Company in Washington, D. C., for instance, maintains constant contact with the Weather Bureau. Employees watching over the company's entire system keep close estimates of the necessary load, based on weather forecasts and past records. For any large increase in power load the company's generating plants at Benning and Buzzard Point need at least two hours' warning. Trouble shooters, both overhead and underground, must be alerted when bad weather threatens. Telephone and two-way radio communication helps Pepco adjust to the weather.

GAS companies use "degree day" data to plan fuel supply for the longer future. But for the days and hours immediately ahead the latest weather information is essential. The Washington Gas Light Company in its operations combines current weather reports with hourly estimates figured on past daily loads. Receiving its natural gas via pipeline, the company several times daily relays weather information to the headquarters of the pipeline company in Charleston, West Virginia, so that the flow of gas to Washington may be adjusted to the needs. If circumstances require, the company's local manufacturing plant can be readied to supplement the supply of natural gas.

In general, gas companies use 5-day forecasts, expected wind velocities and direction, cold-wave and hot-weather warnings to plan their fuel supply orders, to prepare extra gas before critical cold weather arrives, and to notify manufacturing companies of diversion of gas to residential sections. A gas company may find it profitable to engage expert help in interpreting Weather Bureau advance information.

A Weather Bureau publication puts it this way:

> A cold wave of long duration in Louisville means that the natural gas supply must be supplemented by costly manufactured gas. With all of these factors and many more before them, the consulting firm serving the pipeline company will make forecasts, revise them frequently, and watch for every change which may affect the juggling of the supply of natural gas, keeping in

"YOU NEEDN'T GET MY CAR. I'VE DECIDED TO TAKE THE BUS HOME AND AVOID THE 'TRAFFIC JITTERS'!"

close touch with the pipeline's dispatcher throughout the emergency. Thousands of dollars will be saved for the gas company, its customers and their employees, if, for example, it is found that interruption of industrial consumers can be avoided. This advisory service is rendered by the Weather Bureau on a generalized basis, but the consultant meteorologist takes into account the special operational problem of his client. Without the foreknowledge provided by this 24-hour-a-day specialized weather service, many unnecessary precautionary shutdowns of interruptible consumers might take place.

The natural gas pipeline company with its customers hundreds of miles away needs to keep closely informed on weather conditions across the country. It is not only a question of piping the gas needed by the customers, but—as in the case of the pipeline's gas company customers—knowing when the weather will permit taking equipment out of service for repair.

HYDROELECTRIC power dams provide additional use for weather forecasts. These dams must be maintained at a set maximum level. When rain is expected, water must be spilled from the dam. But there is no guaranty that the weather will always turn out as forecast. The predicted storm may not materialize and if meanwhile the water level has been lowered too much the power company may be forced to activate its more expensive coal-fired generators. All that can be done to prevent this is for the company to get not only the latest weather information but

also competent meteorological interpretation thereof.

Power and telephone lines are especially prone to weather trouble from hurricanes and ice glaze formed by freezing rain. Against these dangers advance weather information is extremely valuable. Where it does not make possible operational defense it does help get ready for repairs. Against ice glaze about the only operational defense available to the power company is internal warming of the conductors, most effective when the glaze first forms; but unless the load dispatcher has four to twelve hours' warning the necessary current may not be available, since some reallocation is usually needed.

Telephone companies not only are subject to weather damage to their overhead lines but to problems created by increased load during bad weather. Bad weather, incidentally, increases the problem of gas pipeline operation where communication is interrupted owing to damage to phone lines connecting compressor stations and production and distribution centers.

THREE types of teletypewriter service carrying Weather Bureau reports and forecasts are available at nominal cost. While these services carry only Weather Bureau information, they are installed by telephone companies or Western Union. Of the three services, only one is suitable for use by the typical utility company, Service C. (Service A is mainly for use by airlines as an aid to air navigation. Service O caters to international needs.) As officially described, Service C weather teletypewriter system blankets the U. S. and is the primary means for distributing domestic synoptic weather information. It is divided into six land-line circuits, each covering a different geographical area. Not all the weather data transmitted on Service C go to all circuits. Some information is available only on the circuit of entry. Other reports go to neighboring areas. Still others get national distribution. A detailed list of all the kinds of information carried on Service C is contained in the CAA publication, *Service C, Domestic Synoptic Weather Schedules,* available free from the printing services branch, Civil Aeronautics Administration, Department of Commerce, Washington 25, D. C.

Included in Service C are, *inter alia,* weather summaries, temperature and precipitation bulletins, U. S. surface map analysis, 12-hour pressure change chart, 5-day mean maps, 3-hour analyses, 5-day state forecasts, temperature extreme forecasts, regional weather synopses, state forecasts, guidance forecasts, experimental 30-day outlook, prognostic weather map analyses, hurricane advisories or warnings, etc. Among subscribers to Service C are: Columbia Gas System, Lone Star Gas Company, El Paso Natural Gas Company, Texas Gas Transmission Company, Southern California Edison Company, Utah Power & Light Company, and Michigan Wisconsin Pipe Line Company.

THERE are 57 public service circuits over the country through which regional offices of the Weather Bureau disseminate weather information. Any utility is eligible to subscribe to such a service. The 14 subscribers to the Washington, D. C., circuit, for example, include the Potomac Electric Power Company, the Washington Gas Light Company, and the City of Alexandria Public Works Department. The Washington circuit is run by Western Union at a flat monthly fee of $28.

In Milwaukee—to cite another example—the circuit is run by the Wisconsin Telephone Company. Apart from a $27 installation charge, the service costs sub-

scribers $30 a month plus 35 cents per tenth of a mile (airline measurement) from the company's central office. One big advantage of teletypewriter service is that it is instantaneous and available even when, as often happens during storms, local telephone switchboards are swamped. Nor is there any chance of error creeping into the information due to passage through "middlemen." It is accurate and dependable. The teletypewriter automatically brings to subscribers revisions of forecasts as fast as they become available as well as special advisory warnings.

Utilities also can find profit in various of the Weather Bureau's printed publications. A full list of these is available without charge from the bureau in Washington, or from any of its approximately 300 offices throughout the country. The *Daily Weather Map,* issued seven days a week, costs only 60 cents a month or $7.20 a year. If received by air mail, the cost is increased by $21.90 a year.

FOR operational analysis utilities find the bureau's monthly and annual summaries, *Climatological Data,* very useful. These may be subscribed for by "sections," a section generally being a state. They list such information as daily and monthly precipitation, temperatures, wind movements, and evaporation, and contain both statistics and narrative. The national summary is sold on a monthly and annual basis, as desired.

LOCAL *Climatological Data* is also recommended for public utility company use. It is published monthly and has monthly and annual supplements. Those concerned with hydroelectric power or with floods will be interested in the annual, *Daily River Stages,* giving data for about 625 stations throughout the country; and in *Daily Weather and River Bulletins,* which are designed for local use.

In addition a considerable list of regular, special, and miscellaneous publications is available from the Weather Bureau. One of these, *Weather Forecasting,* available for 20 cents, tells, among other things, how to read a weather map.

—HERBERT BRATTER

"THE great strides in electric power generation are proof that the investor-owned, tax-paying electric power industry has fully accepted the responsibility for helping conserve our nation's energy resources.

"Had the electric industry rested on its laurels in 1925, by 1965 we would have been consuming coal at the astronomical rate of 1,000 million tons every year. The industry has, however, increased its efficiency, and has done so voluntarily. At supercritical efficiencies, precisely the same tremendous output of electric power could be obtained from only one-third the coal.

"Forthcoming tremendous increases in the nation's power requirements, together with rapidly declining fuel reserves even in the face of expanding use of atomic power, must of necessity greatly intensify the electric light and power industry's constant drive toward more efficient power generation. The electric industry's pledge to the people of this nation, to investors, and to customers, is constantly and unremittingly to bend every effort toward this end."

—R. G. RINCLIFFE,
President, Philadelphia Electric Company.

The March of Events

No Changes in Power Policies Planned

SECRETARY of the Interior Fred A. Seaton recently declared the power partnership policy of the Eisenhower administration will be maintained. "I do not consider the results of the recent elections a rebuke to our water and power policies," Seaton said.

"If there is anything wrong with the Eisenhower concept it's a question of salesmanship rather than practicality, right, and justice. I am not aware of any move to modify this administration's over-all policy."

Seaton's statement was in answer to press conference questions shortly after his arrival in Salt Lake City, Utah, to address the National Reclamation Association convention. Seaton said he did not believe the American people want federal domination of the nation's power resources.

Seaton revealed that a Reclamation Bureau study concerning the proposed Pleasant Valley and Mountain Sheep projects on the middle Snake river would be reviewed by him in Washington shortly. The Pacific Northwest Power Company has applied for a Federal Power Commission license to build the two dams.

Illinois

Illinois Bar Section Meets

ON Friday, November 30th, at 2 P.M. the Section on Public Utilities Law of the Illinois State Bar Association was slated to sponsor a program entitled "A Clinical Approach to Public Utility Practice in Illinois." Commissioner Cyrus J. Colter of the Illinois Commerce Commission was to moderate a discussion which would include representatives from each of the principal public utility fields.

The program was to consist of a review of recent developments in federal and state regulation of utilities and was to include a discussion of current problems of practice in their fields.

Louisiana

Proposal Rejected

A PROPOSED state constitutional amendment to create two new memberships on the state public service commission, with appointment in the hands of the governor, was rejected by Louisiana voters at the general election last month.

Maryland

Commission OK's Gas Increase

THE average Maryland residential customer of the Cumberland & Allegheny Gas Company will pay about $8.75 more a year for his gas under new rates approved recently by the state public service commission.

Last March 29th, the company asked for a rate increase affecting its 20,800 customers in Allegany and Garrett counties. Hearings on the request continued intermittently until November 9th. On that date the commission ruled that Cumberland & Allegheny was entitled to an increase.

Olds Favors Dam

LELAND OLDS, former chairman of the Federal Power Commission, said recently that Maryland electric co-operatives would benefit greatly by construction of a multipurpose dam at River Bend, on the Potomac river above Washington.

Olds, who headed the FPC under Presidents Roosevelt and Truman, told a group of Maryland legislators they should have their representatives in Congress work for the project. He appeared before the legislative council's Potomac River Basin Committee at the request of several electric co-operatives.

Nebraska

Turn Down Municipal Ownership

BY a margin of about 3 to 1, voters of Scottsbluff turned down municipal ownership of the local electric distribution system. This means Consumers Public Power District will continue to operate the system.

The chairman of the citizens' committee which campaigned for city ownership said he did not know whether another attempt would be made to change ownership of the system. He said Consumers is doing a good job in Scottsbluff on services and rates. But the profit, he contended, is going to the western division of Consumers while, under municipal ownership, there would be "more profit for the city."

New York

Consolidation Approved

THE state public service commission last month granted its approval for the proposed consolidation of Iroquois Gas Corporation and Republic Light, Heat & Power Company, Inc., as of November 30th, subject to the required further approval of the Federal Power Commission and the Securities and Exchange Commission. The new company will be known as Iroquois Gas Corporation.

Iroquois now serves 900 Btu mixed gas in Buffalo, Lackawanna, and various villages and towns in Erie county and 1,000 Btu natural gas in Salamanca and various towns and villages in Cattaraugus, Erie, Livingston, and Wyoming counties. Republic serves 900 Btu mixed gas in Niagara Falls, Tonawanda, and North Tonawanda, Kenmore, and various towns in Erie and Niagara counties, and 1,000 Btu natural gas in Dunkirk, Batavia, and various villages and towns in Erie, Chautauqua, Genesee, Wyoming, Livingston, Monroe, and Ontario counties. In combination, the two companies serve a total of 328,500 customers.

Tennessee

City to Offer Power Plant Bonds

CALLING the program "an outstanding example of public power without public subsidy," Mayor Edmund Orgill announced last month that the city of Memphis would market, early in December, a $154,000,000 revenue bond issue to finance the construction of a steam-electric plant.

He said that offering of the bonds, through an investment banking syndicate, was the initial phase of a long-range program that would give the city power at the same relative rates to consumers as prevailed under the purchase of Tennessee Valley Authority power.

Orgill said the initial project calls for the largest steam-electric plant ever constructed by a municipality. It will consist of three steam-electric turbogenerator units with a total net capacity of 812,500 kilowatts. The first unit is expected to be operating by the summer of 1958.

Texas

Gas Rate Increase Recommended

A 9 PER CENT increase in domestic gas rates in Houston was recommended to the city council recently by the city's team of rate experts. The recommendation was lower than had generally been expected.

Gas company spokesmen had little to say but there was doubt that the companies would go to court for a higher increase if the city council goes along with the recommendation. United Gas had asked for a 40.6 per cent increase while Houston Natural sought a 21.8 per cent hike in rates.

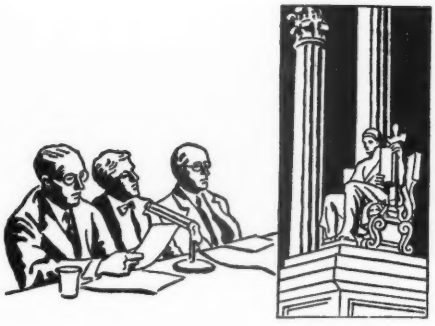
J. H. Foy, rate expert and special counsel hired to present the city's case, joined by Acting Public Service Director J. B. White, made a "finding of fact" that a revenue deficiency of 14 per cent was "indicated" for United and 8 per cent for Houston Natural. However, they told councilmen that if United's administrative and general expenses, and customer accounting expenses were as low as Houston Natural's, then United would be entitled to an increase of only 10 per cent.

West Virginia

Transit Rate Increase Approved

A 3-CENT increase in local cash fares and a general boost in the price of school tickets have been authorized for the Charleston Transit Company by the state public service commission. The commission also approved a 2.5-cent increase in the cost of tokens in the local city zone. Six-cent school tickets were increased to 10 cents. The company estimated the average increase would amount to 14 per cent.

Factors making the increase necessary were listed by a company spokesman as growing use of private automobiles, popularity of television with its tendency to keep people at home, increased use of home air conditioning which makes it more comfortable for people to remain at home in the summer months, and the growth of suburban shopping areas.



Progress of Regulation

Trends and Topics

Combined Billing for Service to Housing Projects

RATES for public utility service, like prices for commodities, may be lower for wholesale purchases. Lower costs incurred in large-scale transactions are reflected in a lower charge per unit. Questions arise, however, as to the propriety of granting the advantages of wholesale rates in particular situations. The owner of a factory taking all his current through one meter in large quantities is obviously a wholesale customer. A person owning rental properties in scattered areas is denied service to all his properties at wholesale rates. What is the status of housing projects?

Question Raised in New York

This question has been presented to the New York commission in a proceeding by the Consolidated Edison Company. The company seeks to abandon its so-called conjunctional and intercommunicating billing. It proposes to meter each building unit separately, charging the higher rate applicable to smaller consumers or to large-scale consumers whose building units are widely separated and therefore do not meet the proximity requirement. The underlying theories have received attention in numerous cases.

The New York commission has dealt with the question of combining billings of separate meters when a single customer at a single location had more than one meter. This situation had developed in some cases because service under different rates for lighting and for retail power had in the past been separately metered. The commission, in the Long Island Lighting Company Case, for example, decided that the utility should combine billing and reading of meters when the consumptions registered by various meters were eligible for billing under the same rate (60 PUR NS 109). That decision followed an order issued to bring about uniformity in the treatment of multiple meters and to determine under what conditions a combination of meter readings might be made the basis of bills to consumers (54 PUR NS 295). Each consumer, so far as practicable, in the opinion of the commission, was to be served through one meter at a single location.

The same commission, in one case, held that conjunctional billing had no application to the situation where a religious and educational institution operated within a fenced enclosure containing buildings of the institution and others (63 PUR NS 297).

No Combined Billing for Housing Project

The Shreveport Housing Corporation was unsuccessful in an effort to obtain an order from the Louisiana commission directing a gas company to bill the corporation on one meter reading or a composite meter reading for service to residents of a housing project (5 PUR3d 22). The company was billing for 223 separate meter readings. All bills were paid by the housing corporation and the rent paid by tenants included the utility service.

The commission was of the opinion that the housing development was not unique and the mere fact that the corporation paid the utility bill and took that fact into consideration in fixing the monthly rental for the apartments did not alter the situation in so far as the metering and billing for gas service was concerned. Further, the utility had a considerable amount of investment in pipeline, distribution system, regulators, and meters at the project and, in the opinion of the commission, was entitled to a reasonable and fair return on that investment.

The commission commented that if it granted the petition by the housing corporation, it would be necessary to grant the same privilege to literally hundreds of other housing projects within the state which were similarly served by electric and gas utilities.

Agreement Providing for Combined Billing Approved

The Tennessee commission approved a contract between a gas company and a housing authority providing for combined billing for a wholesale natural gas supply to low-rent housing and slum clearance projects (39 PUR NS 100). These had been constructed under authority of the State Housing Authority law, with financial assistance from the United States Housing Authority. The authority was to construct and operate its own distribution system within each project. Tenants would pay for gas as part of their rent, and the utility would deal only with the authority, which would be responsible for payment for all gas consumed by each project.

It appeared that through the construction of two projects the utility would acquire a substantial amount of new and increased business. The utility would be saved the expense of individual billing, metering, collections, line leakage expenses, and maintenance of meters and services on individual premises. It would also avoid individual credit risks.

Each Housing Project a Single Customer

Richardson Vista Corporation and Panoramic View Corporation, owners of housing projects comprising 19 and 14 apartment buildings, respectively, on two unsubdivided tracts within the city of Anchorage, Alaska, were granted a refund by a federal court for overpayments to the city as the operator of a

municipal plant (9 PUR3d 356). Electricity was supplied for such facilities and places in each building used exclusively by the owners or provided for the use of their tenants in common, and measured by a meter in each building. The city had treated each building as if it were separately owned. The owners contended that each housing project should be treated as a single customer, the meter readings combined, and the rate applicable to the total energy used, applied.

The court held that a housing project consisting of several buildings erected on one tract of land and owned by one person was an establishment within the meaning of a sliding-scale tariff applicable to professional, mercantile, industrial, and other establishments not classified as single-family residences. The practice of the city in refusing to treat such a project as a single customer and to make a combined meter reading for the entire project was held to be in conflict with the rate schedule.

Principles Governing Combined Billing

The underlying principles which bear on this question may be noted in decisions on rates applicable under various circumstances. The rule was once stated by the Washington commission that each individual customer or location constitutes a separate and distinct unit in computing the charge to be assessed for electric energy and each separate dwelling or business establishment is, therefore, a separate and distinct customer (20 PUR NS 456). The Wisconsin commission decided that premises owned or controlled by one person, firm, corporation, or association, should be metered separately where they are not contiguous (53 PUR NS 212).

But the Wisconsin commission also expressed the opinion that it would be both discriminatory and unreasonable to apply without appropriate modifications the identical residential rate that is designed for single-family residences to multiple dwelling buildings, such as apartment houses, on a single meter. The commission approved a rate schedule provision that where a number of summer cottages are located on the same premises and all owned by the same party, the customer may obtain service for the entire group through one meter (9 PUR NS 517).

Two corporations organized for the purpose of operating two coal mines and operating the businesses separately, but having the same officers and stockholders, were considered by the Kentucky court of appeals to be separate customers of an electric company within rules requiring that each customer have a separate meter (93 PUR NS 388). A Pennsylvania court decided that persons owning and operating an apartment development through the medium of a Massachusetts trust were not entitled to purchase electric service under a wholesale rate even though bills were sent to and paid by the trustee rather than the individual tenants of the apartments, and though the quantity of consumption met the requirements of the wholesale tariff (32 PUR NS 294).

But in a case before a Pennsylvania court it was ruled that an apartment development of 186 apartments in a group of eleven buildings was properly classified as a "commercial" customer within the meaning of a water company's

tariff. Therefore, it was entitled to single-point water service. The development itself was a consumer which purchased the water and there was uniform use of the property for apartment dwellings with uniform leases in which all utility services were covered by the rent (79 PUR NS 177).

An electric customer operating tourist cabins, according to the Colorado commission, should not be required to have each individual rental cabin metered by the utility with the result that there would be a minimum charge for each cabin so metered, if the customer elected to take service under one master meter under the proper rate, paid his bills, and abided by all rules and regulations, including the rule prohibiting the resale of electricity under residential and business rates (87 PUR NS 462).

The Mississippi supreme court, however, held that a minimum charge fixed by a municipal ordinance which provided that a water company might make such a charge to "each consumer" applied to each householder or family unit. The utility was under no obligation to furnish service to one consumer at one minimum charge where the consumer had constructed a number of tenant houses on his property (98 PUR NS 241).

The Alabama commission decided that electric service to a main residence and to rented rooms in buildings separate from the main residence, serviced under the supervision and control of the resident consumer, and located on single premises, could not be combined under a residential rate schedule which stated that "service to more than one residence or apartment shall not be combined" (32 PUR NS 85).

The California commission ruled that a secondary structure on a water customer's premises could not be classified as an additional residence within the meaning of a rate schedule if the addition of that structure was not accompanied by an extension of the customer's existing piped water facilities to that structure (79 PUR NS 329).

Review of Current Cases

FPC May Exercise Discretion As to Grant of Gas Certificate of Limited Duration

THE Federal Power Commission has authority to grant a certificate of limited duration under the Natural Gas Act, but it may refuse to issue such a limited certificate even upon a showing by an applicant of ability to perform and public need for the proposed service. So ruled a United States court of appeals upon review of a commission order denying Sunray Mid-Continent Oil Company a temporary certificate to furnish gas to a pipeline company only for the duration of a contract between the parties.

Abandonment Provision

Although the commission found, upon consideration of the application, that the company was in fact able and willing to perform the service proposed, and that the service met the requirements of public convenience and necessity, it was of the opinion that it did not have the power to issue

a certificate conditioned to expire at the end of a specified time. The commission cited § 7(b) of the Natural Gas Act, which provides that no natural gas company shall abandon any facilities or service without prior approval by the commission after hearing and a finding that the gas supply is depleted or that public convenience permits abandonment. This provision, said the commission, limits the power to issue certificates under §§ 7(c) and 7(e).

Section 7(b), said the court, is clearly not intended to be a restriction upon the certification powers granted in §§ 7(c) and 7(e). It is a recognition by Congress of the necessity for the commission to control the cessation of service of natural gas companies in order to assure continuity of service to the consuming public. The three sections are to be read together. Section 7(e) affirmatively empowers the commission to impose conditions along with the grant of a certificate. This provision should be liberally construed.

Conditions May Be Withheld

Just as the commission has authority to impose conditions upon the issuance of a certificate, so, too, it has authority to refuse to impose conditions. The responsibility of the commission to protect the ultimate consumer would be defeated if the natural gas companies could set, at the initiation of their public service, the date at which they would withdraw that service. The commission cannot be bound by limitations contained in applications.

The burden is upon the applicant to show the reasonableness of a request for a conditional certificate. The applicant offered as its only ground the existence of a contract with the pipeline company providing for termination of sales of gas at a particular time. The existence of such a contract, the court declared, cannot operate as a restriction on the commission's powers. *Sunray Mid-Continent Oil Co. v. Federal Power Commission, Nos. 5279, 5280, 5380, October 29, 1956.*

Mere "Obligation" Held No Basis for Judicial Review of FPC Licensing Order

THE United States court of appeals dismissed, as premature, a power company's petition for review of Federal Power Commission orders licensing a new project and requiring applications for licenses for five existing projects. The commission had issued the two orders on the jurisdictional basis that the project would be located in United States' navigable waters, that it would occupy United States' lands, and that it would utilize surplus water from a government dam.

Interpretation of Order

The company had urged that the assertion of jurisdiction on the basis of a claimed use of surplus water imposed upon it the obligations of § 10(e) of the Federal Power Act, and contended that one of these obligations was payment for the use of surplus water. The court did not agree with the company's interpretation that the order permitted separate charges for both use of a government dam and use of surplus water.

The commission had at no time claimed that surplus water was "other property" of the United States, within the meaning of § 10(e), for which a charge could be imposed. The only "obligation" imposed upon the company was to pay for use of a government dam after twenty years if the present charge became unreasonable, and then only if the commission prepared

an adequate record showing what surplus water was, how much was being used, and what charge was to be imposed.

Nothing in the commission's opinion or finding would serve as a basis for a present or imminent charge for the use of surplus water, said the court, nor as a basis for the other prospective agency actions in which the company contended the commission's "surplus water" theory might be determinative. The company, said the court, need fear no consequence based on its alleged use of surplus water until the nature of whatever action the commission intended was specified and an adequate record presented to support such action.

Realities of Situation Decisive

What was decisive in determining a justiciable controversy subject to review was not the form of the commission order, but rather the realities of the situation which the order created for the complainant. In all cases held reviewable, something was happening to the complainant. Either someone was doing something to him or he was placed under an obligation to do something.

The company had contended that simply being placed under an obligation was sufficient. But an obligation that did not require anything to be done, held the court, was surely not entitled to review. Here, there was not merely the lack of any order to pay something; there was, in fact, an order to pay nothing until the commission decided otherwise. Such a formal distinction did not provide a circumstance that added to injury or threat of injury. Although the commission might decide to impose a charge in twenty years if the present charge became unreasonable, the contingency had not yet occurred.

Any justiciable controversy that might arise in the future could be dealt with then. The company could then contest in the courts the commission's ruling as to the nature and amount of such charges, as well as the jurisdictional basis on which the commission asserted the right to do so; *i.e.*, that the company used surplus water from a government dam.

Effect of Lapse of Time

The mere passage of time between the old and new orders would not estop or preclude judicial review at a later date, since no administrative body had authority to contract with a regulated corporation in a manner contrary to the statute, nor in a way which did not give effect to the intent of Congress. The regulated corporation, by accepting any invalid condition imposed by a regulatory authority did not thereby waive the right to rely on the statute, and the right later to denounce the provision which contravened it. *California Oregon Power Co. v. Federal Power Commission, Nos. 12,235, 12,236, October 25, 1956.*

Rate Reduction Order Overturned as Affording Less Than Established Return

THE recent order of the Louisiana commission (14 PUR3d 146) substantially reducing Southern Bell Telephone & Telegraph Company's rates was set aside as confiscatory by a state court. The decision followed a 1953 Louisiana supreme court holding in the Gulf States Company Case, 62 So2d 250.

Cost-of-capital Approach

In a show-cause proceeding the commission, in June, 1956, found that the

21.3 per cent debt ratio of Southern Bell, which is a wholly owned subsidiary, was uneconomical and imprudent. The capitalization was reconstructed with a 45 per cent debt ratio for the purpose of determining reasonable rates to be applied in the state.

Under this cost-of-capital approach, it was found in that proceeding that the company's rates in Louisiana were excessive. Intrastate toll rates were ordered to be reduced by 20 per cent and pay station rates cut from 10 cents to 5 cents. The resultant rate of return for the company was calculated at 5.2 per cent, giving effect to tax savings from consolidated returns. The commission announced its intention of applying the cost-of-capital method to all utilities within its jurisdiction so as to obviate a charge of discrimination.

Established Return Controlling

In the Gulf States Case an electric company was refused a rate increase by the commission upon a finding that the 5 per cent rate of return then enjoyed by the company was adequate and reasonable. The state supreme court overturned the commission's action, pointing out that the commission had determined in a 1946 proceeding that 6 per cent was a fair rate of return. The court said: "Hence, if 6 per cent is and has been considered by the commission to be a just and equitable rate of return, it would seem that refusal to grant an applicant a rate increase which would enable it to earn 6 per cent would be inequitable and unjust in the absence of exceptional circumstances."

This decision was held to be binding in the instant Southern Bell proceeding, so that the commission could not lawfully adopt a method of computing a rate of return which would result in giving the utility less than the return on investment announced in the Gulf States Case. A smaller return would be arbitrary and confiscatory. By the Gulf States decision, the court declared, there is implicit in the commission's constitutional power to fix reasonable rates a limitation that where rates have been established over a period of time, giving a utility a certain gross return on its property based on the prudent investment theory, it must be allowed rates which will continue to provide the established return.

It is noteworthy that the trial judge, although bound in this case by the supreme court decision, appeared to be in sympathy with the view that the constitutional provision vested in the commission's discretion to determine reasonable rates, and that when that agency had concluded that a return in excess of 5 per cent was reasonable, its determination should not be set aside by the courts as arbitrary or confiscatory. *Southern Bell Teleph. & Teleg. Co. v. Louisiana Pub. Service Commission, No. 57,275, October 19, 1956.*

FPC Orders Discriminatory Contract Power Rates Reduced

After an investigation of the contract rate for electric energy sold by South Carolina Generating Company to Georgia Power Company, the Federal Power Commission ruled that the rate was discriminatory and ordered a reduced rate to be put into effect. South Carolina Generating serves three customers: the du Pont Company which takes 30,000 kilowatts, Georgia Power Company which purchases one-half the output of two 75,000-kilowatt generators, and South Carolina Electric

& Gas Company, the parent of the generating company, which takes the remainder of the output, including that of a 100,000-kilowatt generator. Construction of the generating plant was financed at low cost with 90 per cent debt in order to meet the rate requirements of du Pont.

Contract Rates

The contract here in question provides for a 2-part rate consisting of an energy and a capacity charge. The energy charge was not disputed. The capacity charge was made up of a variable basic capacity charge of $15.30 per kilowatt and a fixed additional figure of $7.20 per kilowatt. The basic capacity charge was subject to automatic escalation for plant changes so that by 1956 the capacity charge to Georgia Power amounted to $25.31.

In contrast to this arrangement, the generating company contracted with its parent, Electric & Gas, for the sale of power at a capacity charge equal only to the basic capacity charge of $15.30 (escalated to $18.11 for 1956). Du Pont was charged $3.70 per kilowatt in addition to the basic capacity charge. Du Pont obtained service superior to that furnished to Georgia Power, and the contract with Georgia Power contained an important cancellation provision not found in either of the other contracts. Du Pont's supply was guaranteed by Electric & Gas, while in the event both of the 75,000-kilowatt units went out of operation Georgia Power would be entitled to no energy at all.

The fixed surcharge assessed against Georgia Power represented a value-of-service charge. It approximated one-half the difference between the basic capacity charge and the estimated cost of obtaining the same capacity from an alternative source.

Cost-of-service Approach Adopted

The Georgia commission, as intervener, urged that all charges above the basic capacity charge should be disallowed, so as to establish a uniform rate to Georgia Power over the entire 25-year term of the contract. This proposal was rejected on the ground that the rate should cover costs on a known plant investment. It was pointed out that such a uniform rate would result in a less than compensatory (and unreasonably low) rate during the first portion of the term and a more than compensatory (and unreasonably high) rate during the remainder of the term. Furthermore, losses incurred because of unduly low rates at one time should not be recovered in excessive rates in future periods. The cost-of-service formula, said the commission, is the one best adapted to the determination of reasonable rates in the electric industry where all costs are known or clearly determinable. The value-of-service formula based upon arm's-length bargaining could lead only to approval of all contract rates irrespective of the public interest, contrary to the purpose of the Federal Power Act. The commission observed that it was not prevented from regulating the rate for power merely because a rate had been fixed by contract. Under the Federal Power Act the commission is required to fix rates in the public interest, not in the interest of the selling utility.

The provisions relating to automatic escalation of the basic capacity charge for changes in plant investment and expenses were held to be unreasonable and in contravention of the Federal Power Act and the commission's regulations governing the filing of rate changes. Correspondingly, a contract provision denying the right to seek changes in the rate over the term of the contract was also unreasonable.

Capital Cost and Rate of Return

For the purposes of determining a reasonable return to the generating company,

the commission treated it as if it were not a separate entity. The capital structure of the parent system was used: 62.8 per cent debt, 9.4 per cent preferred equity, and 27.8 per cent common equity.

The actual cost of debt, said the commission, coupled with a return on equity commensurate with the return to other utilities similarly situated, is a reasonable basis upon which to determine the rate of return. Thus, 3.46 per cent was allowed for cost of debt, 4.9 per cent for preferred stock, and 10.5 per cent for common. The rate of return was fixed at 5.55 per cent.

Working Capital Allowance

Much of the working capital allowance claimed by the generating company was disallowed. To the extent that income tax accruals are available, said the commission, it is inequitable to require customers to pay a return on working capital. The income tax allowance should be based upon the actual interest deduction and depreciation rate since that is the basis upon which the company will pay its taxes.

A claim for working capital to cover fuel purchases was also disallowed because receipts from sales were received before fuel charges had to be paid. Six per cent was allowed for equity funds used in construction work. The commission indicated that higher percentages arrived at by capitalizing profits on investment before commercial operation of new plant has begun should not be allowed. *Re South Carolina Generating Co. Opinion No. 297, Docket No. E-6585, October 24, 1956.*

Mortgage Bonds Approved Despite High Debt Ratio

THE Wisconsin commission authorized a gas company to issue $800,000 principal amount of first mortgage bonds to secure funds to finance its construction program or to pay and retire temporary short-term debt incurred in connection with such program. Although it would increase the company's debt ratio from 36.9 per cent to 49.8 per cent, the commission believed that this condition should correct itself in the near future through operation of a 3 per cent sinking fund applicable to the entire bond issue and the serial maturities on the debentures at the rate of approximately 3.4 per cent per year. Furthermore, evidence indicated a satisfactory coverage of the fixed charges on the entire debt securities.

The proposed bonds were to be dated October 1, 1956, and to mature October 1, 1981.

They would bear interest at the rate of 4½ per cent per year, payable semiannually. The trust indenture would include a cash dividend restriction on the earned surplus of the company as of a specified date. *Re Wisconsin Southern Gas Co., Inc. 2-SB-661, October 1, 1956.*

SEC Views on Effect of Generating Plant Construction Outside Holding Company System Area

THE Securities and Exchange Commission has stated its views on the effect of the construction of an electric generating plant and related transmission facilities by a subsidiary of the American Gas & Electric Company in an area beyond the prescribed limits of the holding company system. It refused, however, to in-

stitute an investigation, as requested by Public Service Company of Indiana, after concluding that the construction would not necessarily constitute an expansion of the integrated holding company system beyond the limits previously found permissible by the commission.

The president of American Gas & Electric Company, who is also president of the subsidiary, Indiana & Michigan Electric Company, advised the commission that the plant and transmission facilities "have as their purpose the supplying of electric power requirements to take care of load growth in the area now served by I&M and neither I&M nor the AG&E system has any intention of using such facilities to provide electric service in any other territory than that presently being served by our system."

The commission said that while one of the policies of the Holding Company Act is to further the effective regulation by the states of public utility companies which are members of a holding company system, the Congress has entrusted solely to it the determination of whether or not a holding company system conforms to the standards of § 11(b) of the Holding Company Act. There is no statutory requirement that all generation and transmission facilities of an integrated utility system must necessarily be entirely within its service area. In fact, the commission said, it has so held in previous cases.

In many instances, electric utility systems have gone outside their service areas to construct generating stations under circumstances where an adequate supply of water for condensing purposes was not available within the systems' service areas, or where it was more economical to transport the electric energy generated by such stations to the service areas of the systems rather than to transport coal or other fuel to locations within the areas.

The holding company has assured the Securities and Exchange Commission that the location of the proposed station was chosen solely for these reasons.

The commission observed that if, in the future, the subsidiary or any other subsidiaries of American Gas & Electric commenced to render electric service to customers within the area now served by Public Service Company of Indiana, the complaining company, or otherwise beyond the area now served by the holding company system, it would be free on its own initiative to institute an appropriate proceeding to determine whether the extension of the service area would be beyond the permitted limits. It said that the present determination not to institute an investigation should not in any way be deemed to be binding or decisive in respect of any issues that may properly arise in any proceeding under the act. *Re Public Service Co. of Indiana, File No. 4-87, Release No. 13292, October 26, 1956.*

Holding Company Authorized to Sell Employees Life Insurance Subsidiary

GENERAL PUBLIC UTILITIES CORPORATION, a holding company, has been authorized by the Securities and Exchange Commission to sell a subsidiary company engaged in servicing employees' group life and ordinary life insurance policies issued under the holding company system's life insurance plan. In addition to servicing such policies for employees of the existing holding company system, the subsidiary has continued to service policies for employees of companies which were formerly, but are no longer, part of the system.

Several years ago, the holding company

was ordered to dispose of that part of the business relating to insurance for employees of those companies which were no longer part of the system. Having concluded that it would not be economically or administratively feasible to attempt to reduce the scope of the subsidiary's activities to the servicing of employee policies of the present holding company system, the holding company proposed to divest itself of its entire interest in the company. The commission decided that the sale was in the public interest and in the interest of investors and consumers.

At the same time, the holding company was authorized to reacquire from the life insurance company a subsidiary employees' pension company. Apart from certain nominal administrative functions in respect of the pension trust, which was in the process of liquidation, this company was inactive and had no income or expenses. In the commission's earlier divestment order, the holding company had been permitted to retain its interest in this subsidiary pending the latter's liquidation. Accordingly, the commission has allowed it to acquire or to hold this company as a direct subsidiary pending its liquidation. *Re Employees Welfare Asso., Inc. File No. 70-3520, Release No. 13288, October 19, 1956.*

Rate Not to Nullify Inherent Advantage of Carrier

THE Interstate Commerce Commission is not authorized to nullify inherent advantages of one transportation agency over another by adding extra amounts to the rates of carriers enjoying such advantages, said a federal district court in a proceeding by a motor carrier to set aside a commission order. The order denied the motor carrier permission to reduce its rate on a specific commodity to the level of the rail rate.

The commission found that rail service on the particular traffic was of less value to the shipper than the motor carrier service, and that if rail carriers were to share in the traffic, their rate would have to be somewhat lower than the motor rate. The commission thought a truck rate 2 per cent higher than the rail rate would allow the motor carrier to maintain its fair share of the traffic. It held that the rail rate, while reasonable as such, would be unjust and unreasonable if applied by the motor carrier.

The court could find no evidence to support the commission's conclusions. On the contrary, it ruled that the rail rate was reasonable for truck service and set aside the commission order as unlawful and inconsistent with the national transportation policy. *Malone Freight Lines, Inc. v. United States et al. 143 F Supp 913.*

Witness Fee in Holding Company Reorganization Case Approved

THE Securities and Exchange Commission has approved a fee to be paid by Standard Gas & Electric Company to Judge James P. McGranery for services as an expert witness in connection with the holding company's reorganization. On January 11, 1956, the commission had disapproved a fee of $10,000 for his services (12 PUR3d 69). Subsequently the United States district court held that while the commission had jurisdiction over the fee allowance, the record was inadequate

to sustain its findings (140 F Supp 468). It remanded the matter to the commission for further action.

Judge McGranery is a former United States district court judge, and former Attorney General of the United States. He was employed by the holding company to testify as to the reasonableness of fees demanded by a law firm, Guggenheimer & Untermyer, for services rendered on behalf of the holding company's stockholders in the reorganization case. The attorney's fee claim was settled about one week after Judge McGranery had been employed. This obviated the necessity of his testifying. Nevertheless he billed the holding company for a $10,000 fee.

He testified that between Tuesday, November 23, 1954, when he was engaged by the holding company, and Wednesday, December 1, 1954, when his services ended, he had devoted practically all of his available time to reading the law firm's fee application and testimony, and prepared himself to testify. Although he had kept no record of the amount of time which he actually devoted to this work, he said that he had spent nights, Thanksgiving Day, and the entire week end on the matter.

During the course of this rehearing, an agreement was reached, subject to commission approval, that the holding company would pay Judge McGranery, and he would accept, $4,000. The commission believed that he had devoted himself conscientiously in a matter of considerable importance to the holding company. It concluded that in view of his impressive background and experience, the work which he did under a tight time schedule, and the agreement between him and the holding company, the fee was reasonable and should be approved. *Re Standard Gas & E. Co. File No. 54-191, Release No. 13283, October 15, 1956.*

"Use" Held Test of Need in Bus Service Discontinuance

THE New Jersey commission's denial of a railroad and subsidiary's request for permission to discontinue substitute bus service between certain points was reversed by the superior court, which held that the evidence presented a clearly meritorious case for discontinuance. The test of need, said the court, is the test of use. Only five commuters regularly used the bus.

There had been no evidence that any intrastate passengers either needed or used the service.

The use by only five commuters did not spell out public convenience or necessity, particularly where there was proof of an alternate and satisfactory method of transportation, even though the latter service would cost the individual passengers somewhat more.

Major Factors Considered

The cost of providing the service, the use made by the public, and the availability and adequacy of other transportation facilities were cited by the court as the three major factors to be considered in passing upon a discontinuance question. The factor of public need of the services rendered was the predominant and controlling element. Such convenience and necessity were not to be gauged by the particular persons who might be benefited at a particular locality but meant the public generally.

The commission had gone no further in its decision than to find a "nominal" continuing demand for the existing connecting bus service. It hardly seemed necessary to cite to the commission the dic-

tionary definition of "nominal," said the court, as meaning "small, slight, or the like in comparison with what might properly be expected." Although the mere fact that the operation of a particular service resulted in a pecuniary loss to the railroad did not of itself establish a right to discontinuance, the evidence showed that public convenience and necessity no longer required continued operation.

Out-of-pocket Loss

In the court's judgment, the commission's third finding, that the present out-of-pocket losses in operating the existing bus service were not disproportionate to the losses that might have been anticipated upon inauguration of the service, was irrelevant. Counsel for the commission had voluntarily conceded that this was not a good reason, and had suggested that the case be remanded to determine whether the deficit suffered by the carrier in operating the connecting buses had any effect upon a determination of public convenience and necessity.

The court pointed out that a comparison of losses suffered then and now was not the determinant, although current operating losses were a circumstance to be taken into consideration along with the extent of the impairment of public need and convenience.

Interstate Passengers' Needs

The commission had not improperly considered the needs of interstate passengers in reaching its decision on public convenience and necessity, held the court. The bus route was wholly intrastate, and the fact that passengers were bound for New York city from points in New Jersey did not deprive the state of regulatory authority. The rule of territorial limitation was not so sweeping that a state could not regulate the intrastate operations. The reception of the interstate passengers' testimony could not logically be viewed as an indirect method of increasing the commission's jurisdiction to include regulation of interstate commerce. *Re Central R. Co. of New Jersey, 125 A2d 415.*

Other Recent Rulings

Extended Area Telephone Service. The North Carolina commission authorized a telephone company to provide extended area service between certain exchanges and to increase rates for business and residential main stations and PBX trunks in an amount sufficient to offset the resultant loss in toll revenues. *Re United Teleph. Co. Docket No. P-9, Sub 26, September 10, 1956.*

Contract Approval or Modification. The California commission held that it was not exercising powers in excess of its jurisdiction if it insisted that a water company seek and secure prior authorization for, or modification of, a contract entered into between the company and a prospective customer or land developer which contemplated extension of service outside the area within which the utility might have claimed to have circumscribed its service. *Sawyer v. California Water & Teleph. Co. Decision No. 53661, Case Nos. 5596, 5606, August 29, 1956.*

Power of Municipalities. The Idaho supreme court held that a statute transferring to the commission such powers as municipalities may have had to control

and regulate public utilities did not diminish or transfer any of the powers and duties of the municipality to control and maintain streets and alleys, and in the exercise of such powers and duties, the municipality could deny the use of streets and alleys to a public utility or could impose reasonable regulations thereon when necessary to the use of the streets and alleys by the public in the usual manner. *Village of Lapwai v. Alligier, 299 P2d 475.*

Sale of Toll Lines. The North Carolina commission authorized a telephone company to sell certain toll lines to another telephone company where, in the public interest, the purchaser could more feasibly and economically service and maintain the lines and could more fully utilize the toll-line mileage in its over-all service operations. *Re Southern Bell Teleph. & Teleg. Co. Docket Nos. P-55, P-58, Sub 166, 22, September 12, 1956.*

Service Area Overlapping. The North Carolina commission pointed out that, although it was not its desire to deprive any citizens of the telephone service which best suited his interest and at the lowest rate possible, it would not require two companies to parallel and overlap service in an area since, to do so, would require the same service to be made available to any other group under similar circumstances and would result in duplicated investments by the serving companies and additional burdens upon all ratepayers. *Re King et al. Docket No. P-55, Sub 158, October 1, 1956.*

Telegraph Rate of Return. Western Union Telegraph Company obtained the Alabama commission's approval of a proposed rate increase upon a showing that the company's existing rate of return, in consequence of rising labor costs, was only one-third of one per cent, and that the proposed rates would afford a rate of return of only 3.7 per cent. *Re Western U. Teleg. Co. Docket 14236, October 8, 1956.*

Specific Performance of Contract. The New Jersey commission held that it did not have the power to compel specific performance of a contract even when the contract was between two public utilities. *Board of Chosen Freeholders of Middlesex County v. Pennsylvania R. Co. Docket No. 9049, July 25, 1956.*

Trucking Service Certificate. The Arkansas supreme court upheld a certificate granted by the commission to transport lumber, plaswood, and treated timber by motor vehicle over designated routes within the state where the evidence showed a public need for the proposed trucking service in the area. *Hoskins et al. v. Melton (Melton Truck Line) 289 SW2d 884.*

Regulation of Railroad Service. The Massachusetts commission, when regulating a railroad's service and equipment, must consider the financial ability of the carrier to respond to its order. *Re New York, N. H. & H. R. Co. DPU 11637, August 8, 1956.*

Contract to Limit Liability. The New York city court held that an interstate carrier was not entitled to contract for limitation of liability on shipments without having filed with the Interstate Commerce Commission a tariff containing rates dependent upon released value. *Kaplan v. Jacobowitz, 152 NYS2d 751.*

Erroneous Refund Suit. A Texas court of appeals ruled that a suit by a railroad

to recover an erroneous refund of freight charges was not a suit for money had and received but a suit for freight charges, within the meaning of the federal Transportation Act prescribing a time limitation on such suits, but on rehearing the court held that the act did not apply to a claim for an erroneous refund of intrastate freight charges, or to a claim for interest paid on the refunded money. *Thompson v. Milwhite Co. 292 SW2d 148.*

Materials Not Structures. The Wisconsin commission held that it was without jurisdiction to grant an exemption under the railroad track vertical clearance law for piles of loose material, the composition and location of which were subject to constant change from day to day, since such piles were not, in the ordinary connotation of the words, structures or installations. *Re Paley Bros. Co. 2-R-3085, September 17, 1956.*

Public Need for Agency Service. The Missouri commission held that an open agency railroad station should be continued even though operating at a loss where there was a public need for the service, adding that if there was no public need or the needs of the community could be satisfied in some other manner, the station should be closed even though a profit was shown. *Re Missouri P. R. Co. Case No. 13,368, September 27, 1956.*

Telephone Company Return. A return of 6.5 per cent on a small telephone company's net present book value rate base was considered reasonable by the Wisconsin commission. *Re Waunakee Teleph. Co. 2-U-4667, October 4, 1956.*

Water Rate of Return. The California commission authorized a water company to increase rates sufficiently to provide a rate of return of 6 per cent where substantial construction expenditures and inflationary costs had depressed the company's current rate of return to 3.6 per cent. *Re California Water Service Co. Decision No. 53834, Application No. 37285, October 1, 1956.*

Steam Heating Rate of Return. A rate of return of 6.26 per cent was allowed by the Missouri commission for steam-heating service on an average net investment rate base which excluded allowances for minimum bank balances and working capital, the latter being fully covered by accrued taxes. *Re Union Electric Co. of St. Louis, Case No. 13,430, October 19, 1956.*

Water Rate of Return. The Wisconsin commission authorized a water utility to increase rates sufficiently to produce a rate of return of 5½ per cent on a net book value rate base. *Re Village of Wonewoc, 2-U-4645, September 26, 1956.*

Preferred Stock Issue. The Illinois commission authorized Commonwealth Edison to issue 400,000 shares of its 4.64 per cent cumulative preferred stock at par value of $100 to finance improvements and acquisition of property, the proposed issue being in line with the company's debt and common equity structure. *Re Commonwealth Edison Co. No. 43620, October 16, 1956.*

Service Extension Not Proper Remedy. An application by telephone subscribers dissatisfied with service for extension of service by another company was dismissed by the Wisconsin commission, which pointed out that the proper remedy for the aggrieved subscribers was to file a complaint with the commission. *Mengel*

Co. et al. v. Wisconsin Teleph. Co. 2-U-4425, October 19, 1956.

Uniform Commutation Fares. The Connecticut commission, in authorizing a railroad to increase intrastate commutation fares, would not increase the fares in excess of those authorized by the New York commission or the Interstate Commerce Commission lest unwarranted discrimination against patrons of the company's commuter service within Connecticut result. *Re New York, N. H. & H. R. Co. Docket No. 9378, October 16, 1956.*

Proper Party in Injunction Suit. The United States district court held that a railroad's complaint, seeking to enjoin establishment of "piggyback" service from railroad terminals between two cities, was not subject to dismissal merely because the purpose of the service was to compete with the motor haulage industry and not to compete with the plaintiff. *Long Island R. Co. v. Delaware, L. & W. R. Co. 143 F Supp 363.*

Motor Carrier Permit Extended. The Washington commission granted a common motor carrier's request for extension of its permit to include the transportation of household goods (local cartage) in a certain city where the extension was in the interest of the shipping public and would not impair the stability or dependability of existing service or the total service essential to the public requirements, nor result in unreasonable congestion of the highways. *Re Bekins Moving & Storage Co. Order M. V. No. 65759, October 5, 1956.*

"Intermediate-point" Rule. The United States district court held that a "route" for "intermediate-point" railroad freight rate purposes was subject to the limitation that it could not be unreasonable, and whether such rate was unreasonable depended upon the extent and direction of circuity, and commercial usage of "route." *United States v. Interstate Commerce Commission et al. 142 F Supp 741.*

Competition Unreasonable. The New Mexico supreme court held that the commission's action in issuing a certificate of convenience and necessity to a second bus company was unlawful and unreasonable where the second company operated buses over the same routes and with approximately the same arrival and departure times and there was not enough passenger traffic to support two competing companies. *Transcontinental Bus System, Inc. v. New Mexico State Corporation Commission, 300 P2d 948.*

Competition for Water Contracts. The California commission held that uncontrolled competition among public utilities for subdivision contracts for water system installations, and the resultant variety of installations, services, and rates, were contrary to the public interest, *Re Pacific Water Co. Decision No. 53862, Application No. 36592, October 1, 1956.*

Intervention of Party in Interest. The United States court of appeals held that the Federal Communications Commission could not deny intervention by an interested party, in a proceeding for a permit to construct a radio station, merely because the commission thought that his participation would not aid the decisional process since, once the commission had determined that he was a party in interest, its discretion was exhausted. *Elm City Broadcasting Corp. v. United States, 235 F2d 811.*

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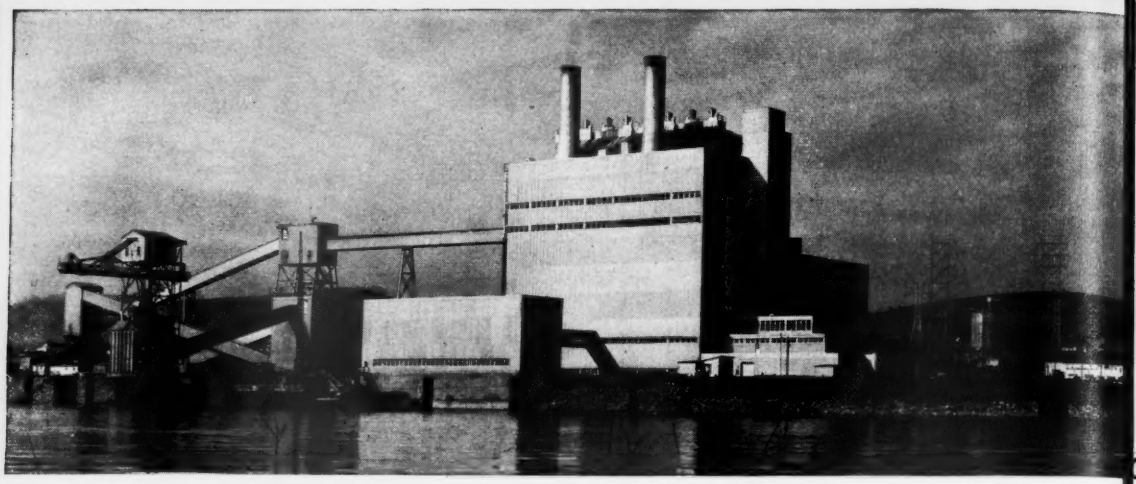

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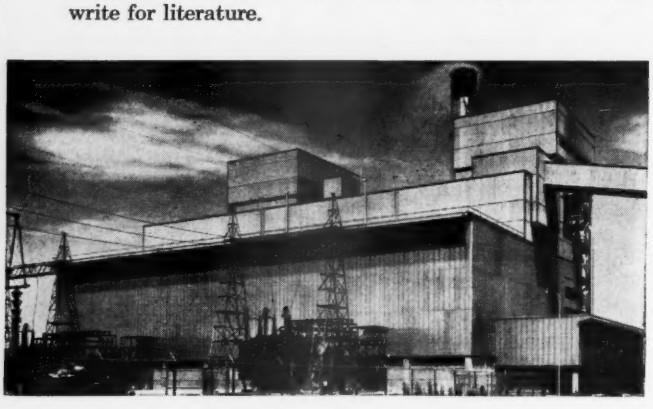

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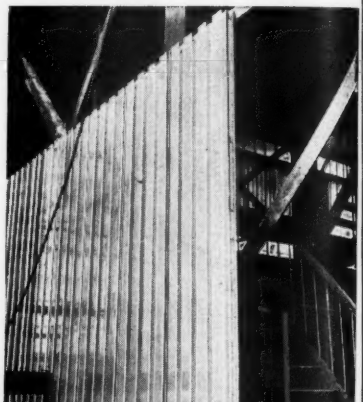

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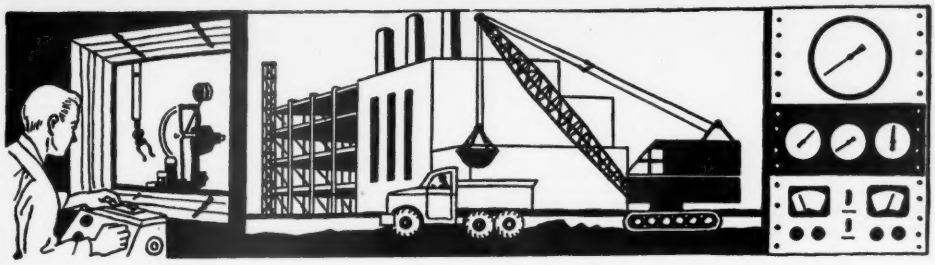


Industrial Progress

Oklahoma Natural Gas Plans $51,000,000 Expansion

$51,000,000 expansion program by lahoma Natural Gas Company dur- the next five years in Oklahoma s announced by H. A. Eddins, sident.

Mr. Eddins said a major portion the $51,000,000 will be spent to nect new customers to the distribu- n system and to improve service. also indicated a large outlay for "aggressive search" for new re- ves of gas and for research aimed developing new uses for natural and improving equipment.

The company now has 347,000 cus- ers served by more than 7,000 es of transmission and distribution s ranging up to 26 inches in meter.

Mr. Eddins said one of the proj- s, to be started immediately, in- ves an expenditure of $350,000 to nstruct 16 miles of 8-inch pipeline connect new gas supplies in the tebo Field to the Clinton system in stern Oklahoma.

Gas Industry Companies Make 14 Per Cent Gain in Safety

AS industry companies reduced eir motor transportation accident e 14 per cent during the past year, American Gas Association re- rted in announcing 15 awards won the industry in the 25th annual ational Fleet Safety Contest con- cted by the National Safety Coun- . This 14 per cent reduction was e of the best achievements in the ntest's truck division, which had an cident rate 26 per cent higher than the previous 12 months.

An accident frequency rate of only 8 per 100,000 miles of operation s credited to the gas industry con- stants with total operations of 291 illion miles between July, 1955, and June, 1956. The rate for 1954-55 was 1.84.

The gas industry figure of 1.58 was exactly the same as the overall rate of the contest, which included more than 1,800 fleets whose 229,000 vehicles operated 4,867,000,000 miles. The national average was 10 per cent higher than in 1954-55, principally due to the inclusion of new fleets with higher accident rates.

Award winners in the Gas Industry Division competition sponsored by the American Gas Association were:

Gas Utility (Very Large Group)—1, Columbia Gas System, Inc. (Pittsburgh Group); 2, Columbia Gas System, Inc. (Columbus Group); 3, Milwaukee Gas Light Co., Milwaukee, Wis.

Gas Utility (Large Group)—1, Pioneer Natural Gas Co., Amarillo, Texas; 2, Kentucky West Virginia Gas Co., Ashland, Ky.; 3, Houston Natural Gas Co., Houston, Texas.

Gas Utility (Medium Group)—1, Wisconsin Power and Light Co., Madison, Wis.; 2, Godfrey L. Cabot, Inc. Appalachian Division; 3, Gas Division—Water, Gas and Sewage Treatment Department, Duluth, Minn.

Gas Utility (Small Group)—1, Concord Natural Gas Corp., Concord, N. H.; 2, Elizabeth & Suburban Gas Co., Elizabeth City, N. C.; 3, The River Gas Co., Marietta, Ohio.

Gas Transmission System Group—1, Alabama-Tennessee Natural Gas Co., Florence, Ala.; 2, Lone Star Gas Co., Transmission Division; 3, Southern Natural Gas Co., Birmingham, Ala.

Alfred Iddles Elected New Atomic Industrial Forum President

ALFRED IDDLES, president of the Babcock & Wilcox Company, has been elected president for the forthcoming year of the Atomic Industrial Forum, Inc., the Forum announced recently. Mr. Iddles succeeds Walker L. Cisler, president of the Detroit Edison Company, who served as president of the Forum since that organization's inception in April, 1953.

The Forum is a non-profit membership association consisting of 1600 individuals and 510 electric utilities, manufacturing companies, research institutions, universities, and labor organizations engaged in the development and utilization of atomic energy for peaceful purposes. The Forum's members are located in the United States and 23 foreign countries.

A charter member of the Forum, Mr. Iddles was one of seven signers of the organization's articles of incorporation. He has been a vice president and a member of the executive committee and board of directors since the Forum's founding. He has been associated with Babcock & Wilcox, one of the United States' leading boiler and nuclear equipment manufacturers, since 1937 and has been the company's president since 1948.

The Forum also announced the election of the following vice presidents for the forthcoming year:

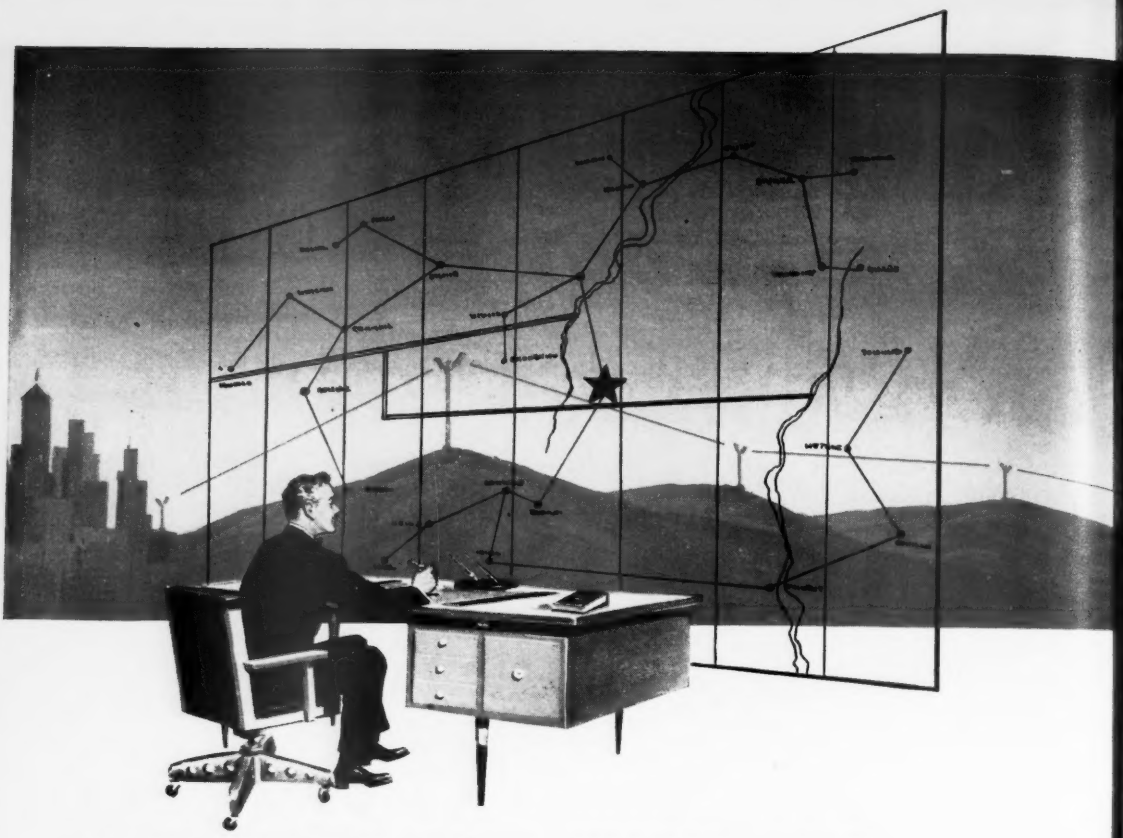
Gordon Dean, senior vice president of the General Dynamics Corp. and former chairman of the U. S. Atomic Energy Commission.

Francis K. McCune, vice president of the General Electric Company and general manager of GE's atomic products division.

Vice Admiral Earle W. Mills (USN, Ret.), president of the Foster Wheeler Corp.

Other officers re-elected for the forthcoming year are Charles Robbins, executive manager; Oliver Townsend, secretary and assistant executive manager; and Russell G. Vernon, treasurer.

(*Continued on page* 31)



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With Motorola Microwave serving all types of applications (many of them in your industry) you get the benefit of extensive experience. In installation after installation, operational records prove that Motorola Microwave performs better, lasts longer and costs less to maintain.

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lumbia Gas, Commercial Solvents Study Joint Petrochemical Project

ALBERT WOODS, president of mmercial Solvents Corporation, George S. Young, president of Columbia Gas System, Inc., recently announced an agreement between the two companies to proceed engineering and economic dies of a proposed joint project produce petrochemicals.

The 40 to 50 million dollar project, ich would be located in the Ohio ley area, has been under investigation during recent months jointly by the two companies. Tentative plans call for the commencement of construction in early 1957 after necessary regulatory authorizations have been obtained.

The long range plans for the project provide for the formation of a jointly owned company and recognize the possibility that the new company may ultimately be engaged in the entire field of ethylene and other hydrocarbon derivatives.

The joint project is based on the utilization of hydrocarbons to be extracted from the substantial reserves of natural gas owned or controlled by Columbia Gas in the Appalachian area and will draw upon the technological and chemical marketing experience of Commercial Solvents.

B&W - Bailey Design Electronic Analyzer

AN electronic system designed to analyze the operation of a giant steam generating unit in a few hours—a task ordinarily requiring weeks of work by a team of specialists—has been developed jointly by The Bab-

(*Continued on Page 32*)

cock & Wilcox Company and The Bailey Meter Company.

By means of "sensing" elements linked to analog scanners, the system can probe hundreds of different boiler locations. At the touch of a button, it begins gathering such data as temperature, pressure and gas composition. Complex electronic devices, operating without human guidance, then sort the information, supplement it with pre-set figures, and punch it in code on continuous tape.

Tape readings are transmitted by teletype to New York City, where B&W has a large electronic computer. Translated automatically into code suitable for computer use, the information is processed mathematically and transmitted back to the boiler site for application by engineers and technicians.

The new system has been developed to help engineers determine quickly and economically such boiler problems as sources of heat losses, the most efficient types of fuels, and when and where to remove combustion waste deposits. Emphasizing the need for a method of correcting material or operating faults promptly, B&W authorities pointed out that boiler malfunctions and abnormal fuel consumption may continue for weeks under ordinary trouble-shooting methods. They said that the system also represents an effort to conserve critically short engineering manpower by reducing the number of personnel and the amount of time required to conduct boiler analyses.

The "brain" of the system is a centrally located electronic coördinating unit developed at the B&W Research Center at Alliance, Ohio. A special "scanning" device created by The Bailey Meter Company of Cleveland, O., makes it possible for the system to gather data from widespread points of a boiler. Each scanning unit collects information from 25 different sensing elements. Any number of these devices may be hooked up with the system.

Recently the system underwent performance tests at the West Penn Power Company's Springdale, Pa., station, where it was used to gather data from 140 locations of boiler number 88.

Potentials of the new equipm will be more fully realized, B&W cials believe, when it is applied l this year to the first of three st generating units of a new type be built by B&W on the American and Electric Company power syst This unit, located at the Ohio Po Company's Philo plant, near Za ville, Ohio, will utilize the hig steam pressure and temperature e employed in the commercial prod tion of electric power. Data wil gathered from 500 different locati of the Philo unit.

Spokesmen for The Bailey M Company, which plans to make new equipment available commerc ly if it proves successful, said the system has been designed prim ily for the analysis of large st generating units. They added, h ever, that it should be adaptable smaller boilers or boiler elements, capable of being moved readily fr one boiler to another.

In future tests, the system will

(Continued on page 34)

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The Keystone Gas Company, Inc.
Home Gas Company

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applied not only to boilers, but to a broad range of equipment used in conjunction with them.

Wisconsin Public Service to Add Seventh Unit to Pulliam Plant

CONSTRUCTION of the largest electric generating unit in the Wisconsin Public Service Corporation system is now underway, according to an announcement made by Harold P. Taylor, president of the company. It will be added to the Pulliam plant in Green Bay and will be the plant's seventh generating unit.

The new unit will be a 75,000 kilowatt steam electric generating unit, large enough to supply the electrical needs of a city of 150,000 people, Mr. Taylor said. It is expected to cost about $13,500,000 and will increase the company's total investment at Pulliam to approximately $39,000,000. When it is completed late in 1958, the plant's total capacity will be increased to 267,500 kilowatts.

The last power unit added by Public Service was the 60,000 kilowatt Weston steam plant in Marathon county which has been operating t two years.

The new unit will be the most e cient performer in the system, b cause of its greater size and becau of new developments in the use steam, said G. S. Meyrick, vice pre dent—power generation and engine ing. Steam will be produced at 10 degrees Fahrenheit and 1450 poun pressure per square inch. After b ing used the first time it will be heated to 1000 degrees and used aga

Closed circuit television—pioneer at the Weston Plant—will be install in the new unit.

The new unit will burn about 7 tons of coal per day and the resulti fly ash will be collected by an electr static collector which will be a pa of the unit's auxiliary equipme The fly ash will then be stored in giant silo at the plant and sold.

The addition of the 75,000 kw u will increase Public Service's to generating capacity to 425,000 ki watts, more than five times t capacity needed in 1941. Since 19 the demand for electric power h grown rapidly each year, reported M Taylor. Kilowatt hour sales for 19 will exceed 1,380,000,000, as co pared to 340,400,000 in 1941.

Cleveland Trencher Issues Ne Bulletin on Model 80W Side-crane-Backfiller-Tamper

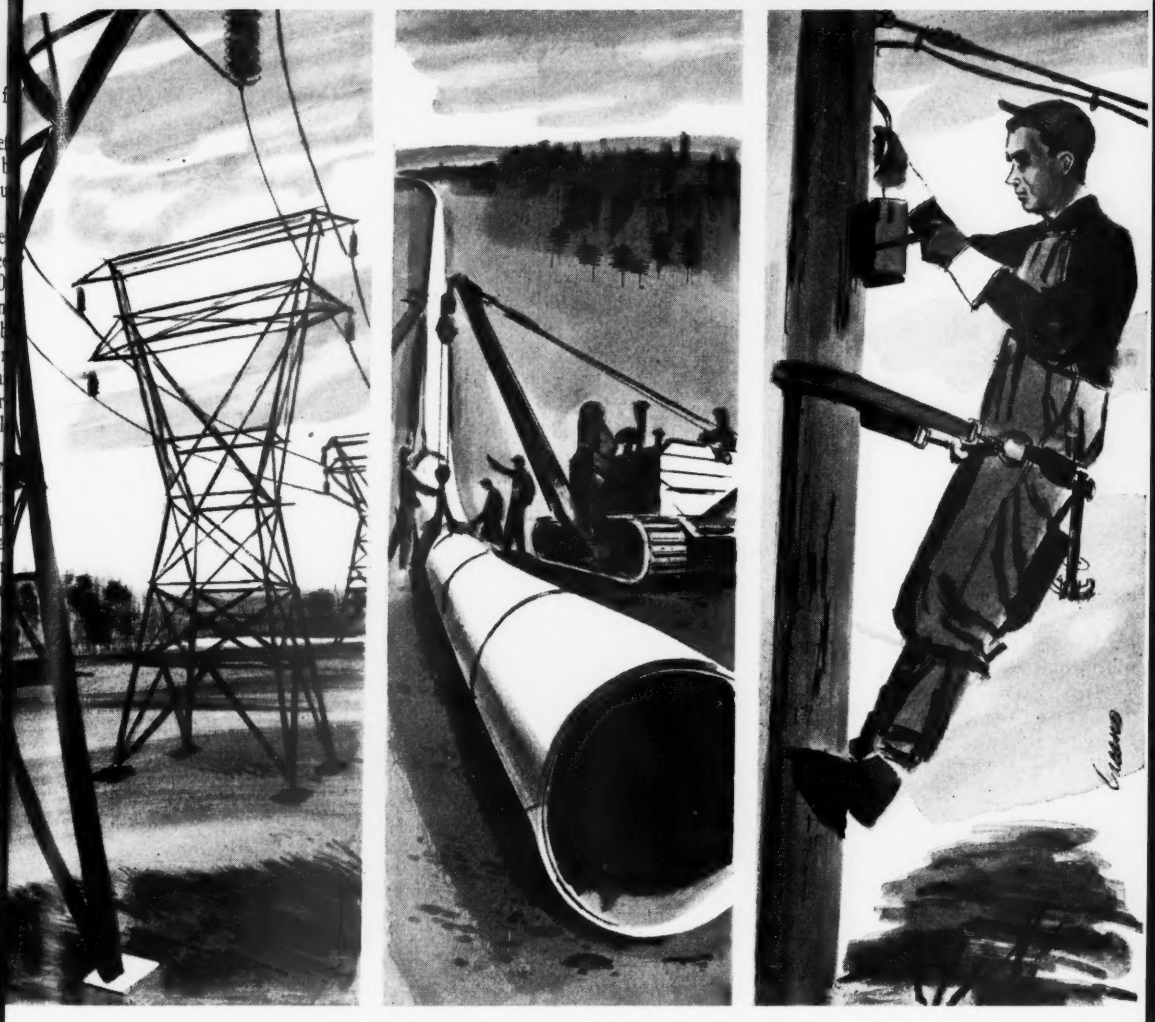
THE Cleveland 80W—a versatile way machine for the utilities and co struction fields—is the subject of new 12-page, 2-color bulletin pu lished by The Cleveland Trencher C A fast, efficient backfiller, the on man-operated 80W is also a high usable pipelayer and sidecrane wi a 30,000 foot-pound capacity. Its ru ged tamper unit does a thorough com paction job, meeting the most rig state and local compaction specific tions.

The bulletin shows in detail ho the special design and constructio features of the versatile 80W are em ployed advantageously under a wid variety of operating conditions i sidecrane, backfilling and tampi work.

Twenty-eight on-the-job actio photographs demonstrate the vario operations of the 80W. The text i cludes case history reports. Comple dimensions and specifications of th Cleveland 80W Sidecrane-Backfille Tamper are given in detail.

Copies of the new Cleveland Mod

(*Continued on page 36*)



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MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

80W Sidecrane - Backfiller - Tamper folder L-102 may be obtained free of charge by writing to The Cleveland Trencher Co., 20100 St. Clair Ave., Cleveland 17, Ohio.

Westinghouse Places Multi-Million-Dollar Test Center in Operation at Sharon

A multi-million-doliar "indoor proving ground" for the world's most powerful transformers of tomorrow was unveiled in Sharon, Pa., recently, for the first time at the transformer division plant of Westinghouse Electric Corporation.

With the completion of this new transformer Test Center, John H. Chiles, Jr., transformer division manager, said the company's $13,000,000 expansion program in Sharon is complete and has increased productive capacity for power transformers by more than 30 per cent.

Highlights of the Test Center are a giant anechoic vault—or sound level testing room, and a high-voltage testing area. The vault, which actually is a building erected within a building, has been described by its engineers as one of the quietest places in the world.

"Here," Mr. Chiles said, "we can test transformers weighing more than 400 tons and rated at greater than 500,000 kilovolt-amperes—much more powerful and larger than any transformers now being manufactured."

The new sound laboratory is 70 feet long, 56 feet wide and 57 feet high. It is constructed so that it is virtually impossible for sound to enter or leave the vault.

Just outside the ultra-quiet room will be perhaps one of the noisiest places in the world. Here, transformers may be bombarded by 5,000,000 volts of man-made lightning. New insulation structures of various materials will be tested to their utmost, the Westinghouse executive declared.

Mr. Chiles said that in addition to the new ultra-modern Test Center, the expansion program, which began in 1953, involved construction of a new 200,000-square-foot steel fabricating shop, additions to eight other buildings totaling more than 150,000 square feet and extensive purchases of machines and tools.

New Network Analyzer Rental Service

A network analyzer is now available to public utility companies, manufacturing industries and consulting engineers for their use in making power system studies. Fast operation, accuracy and minimized advance preparation recommend this unit for completing complex problem solutions in short time. Quiet, air-conditioned quarters, designed for the purpose, aid in efficient operation.

The analyzer is capable of simulating any electrical system which may be represented by 12 generators, 88 lines, 32 loads, 16 transformers and 150 buses. The nominal per diem rental fee includes the services of an operator and an assistant. Location is in downtown Philadelphia, convenient to transportation and hotels.

For time available, contact either nearest I-T-E district office or I-T-E Circuit Breaker Company, Philadelphia 30, Pa.

Niagara Mohawk Plans $5,000,000 Hydroelectric Project

PLANS for the construction of its second hydroelectric power development on West Canada Creek were announced recently by Niagara Mohawk Power Corporation. President Earl J. Machold said the $5,000,000 project will be started at Prospect immediately, with completion scheduled for the fall of 1958.

The development calls for a concrete dam across the West Canada short distance upstream from the Village of Prospect. About a mile downstream from the dam, the company will build a new power house for 17,350-kilowatt capacity turbine generator.

Niagara Mohawk will also build outdoor transformer station and new high-tension transmission line connecting Prospect station with the company's other West Canada Creek generating plant at Trenton Falls. Power from the two stations will be distributed from that junction to customers in the Utica area.

Prospect station will join 85 other hydro and six steam-electric generating stations in the Niagara Mohawk System which together produce about 3,000,000-kilowatts of power for the vast industrial, urban and farm areas served by the company in upstate New York.

This second harnessing of the West Canada not only will increase the stream's power-producing capability to about 45,000-kilowatts, but it also will increase the supply of water available to the City of Utica.

Utica takes water for its reservoir system from the State-owned Hinckley reservoir which controls the flow through West Canada Creek and also is used to regulate the waters of the Barge Canal.

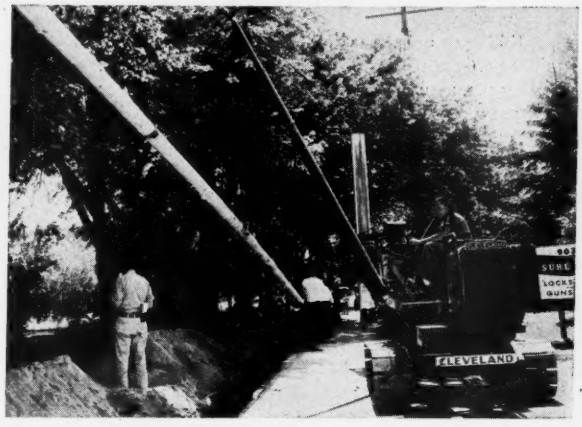
Under long-standing arrangement with the Utica Board of Water Supply and the water company which preceded it, Niagara Mohawk has been furnishing pumping facilities in connection with delivery to Utica of about 16,000,000 gallons of water daily from Hinckley.

When the Prospect Reservoir is finished, the Utica Board of Water Supply will be able to take water directly from that point, rather than from the more-distant Hinckley Reservoir and will have access to a water supply from which it can take up to approximately 50,000,000 gallons a day—adequate for its maximum daily requirements for many years in the future.

Meanwhile, until the Prospect supply is available and in accordance with plans approved by the Utica Board of Water Supply, Niagara Mohawk has

(*Continued on page* 38)

Trenching • Pipelaying



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taken steps to provide additional pumping capacity to increase present delivery of water to Utica by about 5,000,000 gallons a day.

This program includes construction by Niagara Mohawk of a new 1,000-horsepower pumping plant near the junction of Powell and Hinman Roads, Town of Trenton, Oneida County, connected to the existing pipeline serving Utica's reservoir system. The power company also will build a 500-horsepower pumping plant at Hinckley to replace the smaller and older one being used.

Two new substations and additional distribution facilities also will be built by Niagara Mohawk to take care of the electrical requirements of the new water-pumping plants. One substation will be located at the Hinckley pumping plant and the second will be built adjacent to the Powell Road pumping station.

Mikula Heads Utility-LP Unity Drive

JACK H. MIKULA, general sales manager of the Milwaukee Gas Light Company, has been elected chairman of the Gas Unity Committee, a newly formed group which for the first time brings fuel suppliers and equipment producers together in a unified promotion program.

The committee will foster promotional efforts for gas and for gas appliances and equipment both on and beyond utility gas mains. It is made up of representatives of the American Gas Association, the Gas Appliance Manufacturers Association, the Liquefied Petroleum Gas Association and the National LP-Gas Council.

Mr. Mikula said the committee will develop a national program based on local coöperation of gas utility companies, gas appliance manufacturers and LP-Gas marketers. Successful pilot programs, he added, are already going on in Wisconsin, Iowa, Oklahoma and Florida. These programs, he pointed out, permit the unified industry to offer the advantage of gas to American homeowners "wherever they live—on or off the gas mains."

H. Leigh Whitelaw, executive vice president of GAMA was named secretary of the committee and Arthur E. Bone of Eastern Propane Co., recording secretary. A. G. A. repres ative, in addition to Mr. Mikula, R. L. Stephenson, Lone Star Gas Dallas, and Bernard H. Witt Peoples Gas Light and Coke Chicago. LPGA representatives R. W. Sidenfaden, Suburban Service, Inc., and William R. L Warren Petroleum Corp. A. H. of Suburban Propane Gas Cor the National LP-Gas Council re sentative.

Fischer & Porter Develop Dig Demand Recorder

FISCHER & Porter Company, H boro, Pennsylvania, announces development of a Digital Dem Recorder which automatically duces a punched tape record of hour demands. The punched record can be read visually with or processed quickly by a Fische Porter Automatic Tape Trans operating a card punch such as IBM 526.

Designed especially for, and coöperation with, the electric u industry, it is claimed that use o Demand Recorder and Autom Translator in load research work allow electric utility managemen get up-to-date information on sys load characteristics rapidly and i pensively. Use of the Demand corder in customer demand bi will allow completely automatic ing procedures.

The Digital Demand Recorder erates from the standard contact m ing mechanism on the watt-h meter. It is a completely elec mechanical device with few c tolerances.

Further information and desc tive literature is available by wri Fischer & Porter Company, Jacksonville road, Hatboro, Penn vania.

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(*Continued on page* 40)

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is exposed in surface mining operations, mechanical sweepers clean the buried treasure and other power shovels scoop it up and load it into trucks for delivery to the preparation plant. Industrial progress has brought infinitely bigger and better equipment in the past fifty years or so, yet there has been little change in basic appearance of these earth-moving behemoths.

Underground, however, the transformation has been so thorough as to create a positive impression of the successful efforts of coal operators in meeting the need for greater efficiency in extracting their products. As in the case of power shovels costing upwards of $2½ million, the ingenious underground machinery developed by America's scientific and engineering talent reflects the vast investments being made by the coal industry in its rapid strides along the road of coal progress.

Electrically-operated mobile machines with long blades cut deep into the coal at the face of the seam. Automatic drills follow the cutting machines and bore uniform holes into which explosives may be tamped so that the charge will loosen the coal and make it ready for loading. In some mines compressed air is substituted for explosives. Small cylinders are inserted into the holes at the working face, after which air is released from the cylinders with such force as to cause the block of coal to break apart and fall to the floor for loading.

Electric loading machines capable of scooping up as much as six tons of coal a minute draw the load onto a conveyor belt and into an electrically-driven shuttle car that carries as much as ten tons from the working section to the underground railroad or conveyor belt along the main haulageway.

Another innovation in deep mines is the continuous mining machine, which Hollywood would likely refer to as the "4-D" model because it combines the cutting-drilling-shooting-loading processes into a single operation. Powered by electricity, it moves up to the seams on wheels or tank-like treads, cuts the coal from the solid face, and simultaneously conveys it up over its back to the waiting shuttle-car or conveyor belt.

The preparation plant, another symbol of engineering achievement, is located outside the mine. Here slate and other impurities are separated from the coal, which is then screened and sized according to consumer specifications. Chemical engineers analyze the coal while it is being treated at these expensive "coal laundries."

The electric utilities are familiar with the savings attendant to upgrading of coal. Through this processing, combined with improvement in boiler equipment and firing techniques by combustion engineers, the efficiency of coal in the generation of electricity has increased threefold in the past thirty-five years.

PUAA Contest Plans Nearing Completion

ARRANGEMENTS for the 1957 Better Copy Contest, sponsored annually by The Public Utilities Advertising Association, are nearing completion, with chairmen named to head up the contest's 21 categories, according to contest chairman Frank C. Lietz, advertising manager of Northern Illinois Gas Company, Bellwood, Illinois.

The 1957 contest will be the thirty-fourth of the series conducted every year since 1924 by PUAA. It is open to all utilities among the Association's more than 450 members, also to non-member gas, electric and transportation utilities throughout the United States, Canada and Hawaii.

The 1957 contest will judge advertising published in 1956. February 1 is the deadline for all entries except annual reports, which have an April 1 deadline. Awards will be made to the winners during PUAA's annual convention in Cleveland, Ohio, May 8-10. Rules for the contest are being mailed to PUAA members in mid-December.

Winning entries will be displayed in an "Awards Blue Book," copies of which will be available for purchase in May.

Chairmen and the classification they will be responsible for judging are: (1) Complete Programs—Robert F. Calrow, advertising manager, Minneapolis Gas Company; (2) One Series of Three to Five Newspaper Advertisements on a Public Relations Subject—Mrs. Christine Forbes, advertising manager, The Hartford Electric Light Company; (3) Single Newspaper Advertisement on any Subject—M. Warren Bateman, assistant manager, public relations department, Georgia Power Company; (4) Employee Magazines—A. James McCollum, manager, advertising & publicity department, Pacific Gas & Electric Company; (5) Employee Newspapers—R. C. Groffmann, assistant to director of public affairs, Public Service Company of Oklahoma; (6) Any Series of Direct Mail Pieces—LeRoy MacLeod, advertising manager, New York State Electric & Gas Corporation; (7) Any Single Booklet, Pamphlet, or Other Single Piece Distributed to Customers—John W. Cook, advertising supervisor, The Shawinigan Water & Power Company; (8) Printed Material Other Than Newspaper Advertising Used in Dealer Promotion on Any Subject—Phil O'Connell, advertising manager, The Potomac Edison Company; (9) Special Employee Literature Other Than House Organs—Phillip F. Atlas, manager, advertising & sales promotion, Northern Indiana Public Service Company; (10) Window Displays—Roman J. Pijanowski, sales promotion manager, The Peoples Natural Gas Company; (11) Interior Displays—Elbert L. Luther, advertising manager, The Narragansett Electric Company; (12) Car and Bus Cards and Truck Posters—Anthony B. Young, assistant advertising manager, The Peoples Gas Light & Coke Company; (13) Outdoor Advertising—G. Fred Cook, Jr., director, public relations, Virginia Electric & Power Company; (14) Annual Report to Stockholders—Phil E. Stephens, advertising department, The Detroit Edison Company; (15) Radio Advertising—William D. Williams, vice president, sales, New Jersey Natural Gas Company; (16) Motion Pictures—James A. Carvin, advertising director, Indianapolis Power & Light Company; (17) Television Advertising—Fred H. Dettmar, manager, information services, The Dayton Power & Light Company; (18) Single Newspaper Advertising Promotion the Use of Electricity—Harold Haig, advertising & publicity director, Central Illinois Light Company; (19) Single Newspaper Advertisement Selling Electric Merchandise—Vance E. Gillmore, advertising manager, Texas Electric Service Company; (20) Single Newspaper Advertisement Promoting the Use of Gas—George R. Haysel, advertising manager, Southern California Edison Company; (21) Single Newspaper Advertisement Selling Gas Merchandise—Sherman Payne, manager, sales promotion & advertising, Arizona Public Service Company.

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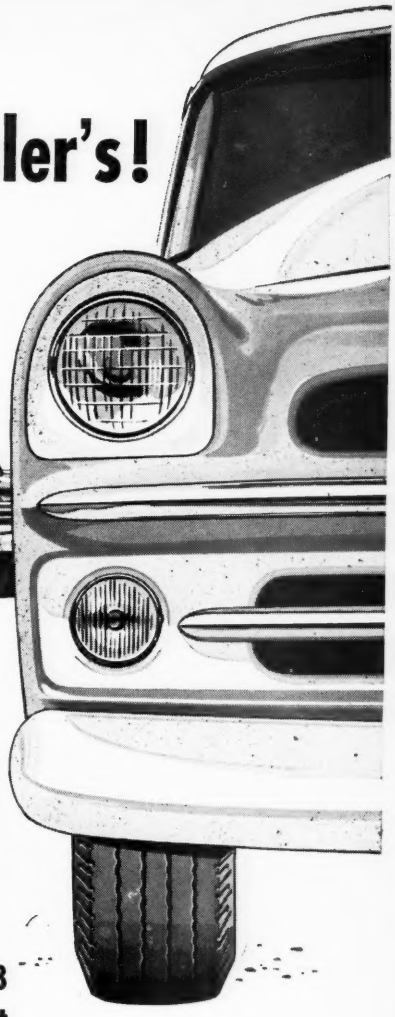

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You enjoy BETTER PERFORMANCE! No other truck can touch these big, new Dodge V-8 *Power Giants* for time-saving, step-out-front zip.

You enjoy EASIER DRIVING! Only Dodge trucks give you push-button shifting! * And the industry's sharpest turning saves you work in traffic.

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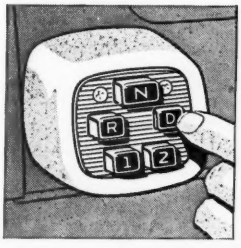

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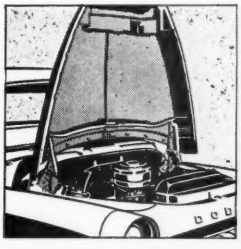

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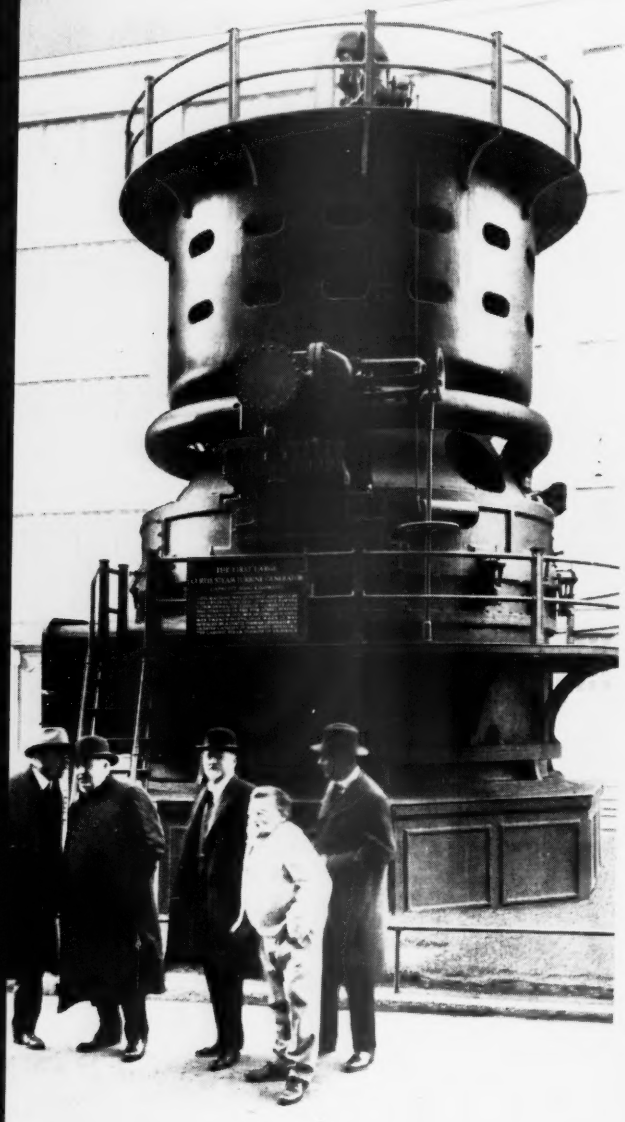

In 1903, the world's first large steam turbine-generator—rated 5000 kilowatts—was installed at the Fisk Generating Station, Commonwealth Edison Company. Advance in turbine-generator design and performance came so fast that after only six years of reliable service this first large turbine-generator was replaced by a new unit more than twice as powerful. In 1909, the first unit was dismantled, returned to Schenectady and erected as a permanent monument to the skill and engineering genius of the men who built it.

Today General Electric is designing steam turbine-generators rated 450,000 kw—90 times that of this first unit. Fifty-three years ago the total installed capacity of the nation's electric utilities was approximately 1.5 million kilowatts. Today it is over 120 million, an increase of 8000%.

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254-52A

William L. R. Emmett and Thomas A. Edison (left) and Charles P. Steinmetz (light suit), early pioneers in the electric industry, are pictured before the world's first large steam turbine-generator. This "Monument to Courage" was recently rededicated in ceremonies held in Schenectady, N. Y.

General Electric's Turbine-Generator Development Laboratory where full-scale tests and measurements are made. Some of these were impossible to obtain before, even under actual operating conditions.

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